

II. THE EPIPASCHIINÆ¹ OF THE WESTERN HEMISPHERE; A SYNONYMIC CATALOG OF THE SPECIES HITHERTO DESCRIBED, WITH FIGURES OF MANY, WHICH HAVE NOT HERETOFORE BEEN DEPICTED.

BY W. J. HOLLAND AND WILLIAM SCHAUS.

(PLATES I-VII)

INTRODUCTORY

The publication of the preceding paper from the pen of Mr. William Schaus (Ann. Carn. Mus., XVI, pp. 9-41) in which he has described more than fifty new species of neotropical *Epipaschiinæ*, has furnished the motive for the preparation of the following list. Having at hand the types of many of the species named by Mr. Schaus, as well as good representatives of many others accurately determined by him, it has seemed that it might be well to figure the

¹ Mr. A. J. T. Janse in the Bulletin of the Hill Museum, Vol. I, No. 3 (July, 1924, p. 502) has suggested the subfamily name *Pococerinæ* for this group of Pyralid moths. He is apparently influenced in so doing by the fact that Sir George F. Hampson in his paper, *The Classification of the Pyralidæ*, &c., (Cf. Trans. Ent. Soc. Lond., 1896, pp. 451-550) has treated the genus *Epipaschia* Clemens as a section or subgenus of *Macalla* Walker. Mr. Janse states that the name of a subfamily should be founded upon that of a valid genus and not upon that of a genus, which has been relegated to the synonymy.

While admitting that Mr. Janse is correct in his statement of the rule in cases where a genus has been sunk as an absolute synonym, the writer is not clear in his mind that this is such a case. Sir George Hampson has been quite in the habit of gathering together a number of genera set up by previous authors, and even by himself, and grouping them, as he has done in this instance, under some name which he finds applicable. In many such cases he does exactly what he has done in this. He does not treat the name as an exact synonym, but recognizes it as applicable to a section of the more comprehensive group, which he has blanketed under some other, generally older, name. Much depends upon the conception of the individual as to what constitutes a genus. Personally the writer is for his part quite unwilling to accede to the propriety of sinking the name *Epipaschia* as a mere synonym of *Macalla*. With specimens of the genotypes, *Epipaschia superatalis* Clemens and *Macalla thyrsisalis* Walker before him, as he writes, he finds difficulty from his standpoint in regarding these two forms as being strictly congeneric. The venation, upon which Sir George has mainly relied in all his work, is

material which is accessible, so that students of the future may have more than merely verbal descriptions to guide them in the determination of species. While not willing to assent altogether to the favorite dictum of the late M. Charles Oberthür, who used to say "pas de bonne figure, pas de nom valable," the writer of these lines knows that a recognizable illustration of a species is of immense assistance in the work of rapid determination. I have, therefore, with the help of Mr. Schaus undertaken the compilation of the following list, so far as possible utilizing the material at my command in the Carnegie Museum, and having also been kindly supplied with invaluable assistance drawn from the resources of the National Museum in the way of material with which to illustrate the hitherto unfigured species. To the authorities in charge of the collections in Washington I desire to express my sincere gratitude, especially to Dr. Dyar, and to my good friend, Dr. Schaus, for all the assistance afforded me. The difficult work of identification has been entirely performed by Dr. Schaus, so far as the neotropical species are concerned.

To Dr. William Barnes of Decatur, Illinois, and to his associate, Mr. Foster H. Benjamin, we are under profound obligations. With the most engaging courtesy they kindly loaned me typical specimens of the species described in recent years, the types of which are in the

indeed similar in the two insects, but even in the venation there are slight differences, due to the condensation or compression of the neuration in the costal region of the forewing of *Macalla*, leading to a marked narrowing of the antero-posterior diameter of the wing in many of the species. The fore wings of *Epipaschia* are relatively wider and more broadly triangular in outline than those of *Macalla*. The squamation of the wings of *Epipaschia superatalis* and *E. zelleri* is finer and more smoothly arranged than in *Macalla thyrsisalis*, where it is distinctly coarser and rougher. There are manifest differences in the palpi and antennæ, as pointed out by Sir George Hampson himself in his table of comparisons. The pattern of maculation is different in the two species. Altogether the writer finds it quite difficult to arrange the North American species hitherto referred to *Epipaschia* in such a way that they shall fall naturally into a series with the large group of neotropical moths, which are undoubtedly referable to the genus *Macalla*. He therefore in the present list retains *Epipaschia* as a valid genus and with the retention of this genus retains the subfamily name, *Epipaschiinæ*, which until a few months ago, for the longer part of a century, has been recognized and used by lepidopterists in all lands, and is so firmly imbedded in the literature of the subject that to propose a change at this late date seems likely to lead to much unnecessary confusion.

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Barnes Collection, and also kindly sent me excellent photographs of the types, not only of the species described by them, but of other species, which they have studied elsewhere. They have rendered us great assistance in our attempt to correctly determine the species found within the limits of the United States.

Thanks are also due to Prof. T. J. Headlee of the New Jersey Agricultural Experiment Station for the privilege of consulting the Hulst Collection and for information as to the types described by that author. Dr. Headlee's kindness has been matched by that of Dr. Engelhardt of the Brooklyn Institute who enabled me to consult a number of the "types" of Hulst preserved in the entomological collections of that Museum. To the American Museum of Natural History I am likewise indebted for the loan of specimens, and to Mr. Frank E. Watson for aiding me in examining the collections in that institution.

I am indebted to Dr. Henry Skinner of the Academy of Natural Sciences in Philadelphia, for information as to the types described by Clemens. I am also under obligation to Dr. Karl Jordan of the Tring Museum and to Dr. E.-L. Bouvier of the National Museum in Paris, to the former for information as to the types of species described by Felder and Rogenhofer, and to the latter for information as to the types of Ragonot. Mr. W. J. Kaye has kindly given me information as to the species recently described by him. Finally I wish to thank my amiable associate, Mr. Hugo Kahl, for his un-failing helpfulness in looking up specimens and aiding me in searching the literature, thus saving me many precious moments; and likewise Mr. Sidney Prentice, who helped me in the photographic laboratory in developing the plates.

In the arrangement of the species known to occur in the United States we have in the main followed the Check-list of Barnes and McDunnough. The genera and the neotropical species are for the most part arranged in the order at present prevailing in the United States National Museum.

Generic references of species in many cases have not been closely verified, inasmuch as to have done this would have required more time than was available. Although in a number of instances constrained to accept the generic references made by the authors of species and believing that in the main the species will be found to be correctly placed in their genera, nevertheless it is quite certain

that a revision of the genera is much needed. Some of the genera may have to be subdivided, which will probably involve the resuscitation of some names, which in recent years have been relegated to synonymy. In certain cases genera will have to be suppressed, and new generic names found for some of the species hitherto allocated to them. An instance of this is in the case of the genus *Wanda* Hulst. The genotype of this group is the species named *tiltella* by Hulst. This species, as has been already pointed out by others, is referable to *Tetralopha*. In view of the fact that Dr. Schaus in recent years has named a number of species from the American tropics, placing them in the genus *Wanda*, the senior author has ventured to erect a new genus for their reception.

The main object in the preparation of this list is to aid the student in identifying the species by indicating the location of the original descriptions in the literature, and, so far as possible, by furnishing recognizable figures of the species. A complete revision was not the task, which the senior author of this little contribution to the subject set before himself, when a few months ago he undertook the work.

The plates were made by the senior author. The specimens were mounted on glass according to a method which he had the pleasure of evolving more than forty years ago and which has since come into general use. This required the removal of all the labels from the pins, their preservation in exact order, so that they can be returned to each pin after the specimens have been photographed. This proved to be a very delicate and time-consuming undertaking. Even with the best of modern appliances for photographing, the results with these small forms are not always quite satisfactory, some of the finer details being obscured, or lost, but in the main the figures we have succeeded in obtaining will serve a useful purpose in enabling the student to secure a general idea of the characteristics of the species. It is a matter of regret that owing to the limited size of the page in the ANNALS we were forced in some cases slightly to reduce the figures below their natural size. Of the more than three hundred species, which are listed in this catalog, over two hundred and fifty are shown upon the plates, most of them being figures of species, which never before have been illustrated. It is hoped that this little work may help to lighten the labors of students in the future.

Family PYRALIDÆ.

SUBFAMILY EPIPASCHIINÆ.

(*Pococerinæ* Janse.)

Genus MILGITHEA Schaus.

Milgithea SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 206. (Genotype *Pococera melanoleuca* Hampson).

1. *Milgithea melanoleuca* (Hampson). Pl. I, fig. 17, ♀.

Pococera melanoleuca HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 458.

Milgithea melanoleuca SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 208.

Habitat: Central America to eastern Brazil.

Type in British Museum from Colombia. Carn. Mus.: Costa Rica, two; Guatemala, one (Schaus coll.); Rio de Janeiro, three (H. H. Smith coll.), in Holland Collection. Represented in the U. S. N. M.

2. *Milgithea albimedialis* (Hampson). Pl. IV, fig. 5, ♀.

Pococera albimedialis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 132.

Pococera melanoleuca DRUCE, Biol. Cent.-Amer., Lep. Het., II, p. 548 (*nec* Hampson) *fide* Hampson, l. c.

Habitat: Peru.

Type in British Museum from Peru. Represented in the U. S. N. M.

3. *Milgithea suramisa* Schaus. Pl. IV, fig. 9, ♂, *type*.

Milgithea suramisa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 208.

Habitat: Mexico and Central America.

Type, male, in U. S. N. M. from Costa Rica (Schaus coll.); also paratype from Jalapa, Mexico.

4. *Milgithea circumlucens* (Dyar). Pl. I, fig. 20, ♀.

Arnatula circumlucens DYAR, Proc. U. S. N. M., XLVII, 1914, p. 321.

Milgithea circumlucens SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 209.

Habitat: Central America to Bolivia.

Type, allotype, and paratypes in U. S. N. M. from Canal Zone; also males and females from French Guiana (Schaus coll.). Carn. Mus.: Guatemala, two (Schaus coll.); French Guiana, three, (S. M. Klages coll.); Bolivia, one (José Steinbach coll.).

Genus ANARNATULA Dyar.

Anarnatula DYAR, Proc. U. S. N. M., LIV, 1918, p. 371. (Genotype *Anarnatula hyporhoda* Dyar = *Pycnulia sylea* Druce).

5. *Anarnatula subflavida* Dyar. Pl. IV, fig. 14, ♀, *paratype*.

Anarnatula subflavida DYAR, l. c.

Habitat: Panama.

Type, male, and paratypes in U. S. N. M. from the Canal Zone (Busck coll.).

6. *Anarnatula sylea* (Druce). Pl. IV, fig. 23, ♂.

Pyonulia sylea DRUCE, Biol. Cent.-Amer., Lep. Het., II, 1893, p. 564, Pl. 101, fig. 24.

Anarnatula hyporhoda DYAR, Proc. U. S. N. M., LIV, 1918, p. 371.

Habitat: Mexico, Guatemala, French Guiana.

Type, male, in Godman Collection, Brit. Museum; type of *A. hyporhoda* Dyar in the U. S. N. M. from Mexico (Müller coll.). We find it impossible to detect any distinction between *sylea* (Druce) and *hyporhoda* Dyar, except a slight difference in size. The specimen figured upon our plate is one in the Carnegie Museum from Guatemala (Schaus and Barnes coll.).

Genus PARANATULA Dyar.

Paranatula DYAR, Proc. U. S. N. M., XLIV, 1913, p. 321. (Genotype *P. zographica* Dyar, l. c.)

7. *Paranatula zographica* Dyar. Pl. I, fig. 21, ♂.

Paranatula zographica DYAR, l. c.

Habitat: Mexico to Bolivia.

Type and paratypes in U. S. N. M., Venezuela (Schaus coll.); Orizaba, Mexico (Müller coll.); Jalapa, Mexico (Schaus coll.). Carn. Mus.: Bolivia, six (Steinbach coll.).

8. *Paranatula vincentia* Schaus. Pl. IV, fig. 6, ♂, *paratype*.

Paranatula vincentia SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 209.

Habitat: Guatemala.

Type, male, in U. S. N. M., from Cayuga, Guatemala (Schaus coll.).

Genus MICROPASCHIA Hampson.

Micropaschia HAMPSON, Ann. Mag. Nat. Hist. (7), XVII, 1906, p. 122. (Genotype *M. orthogrammalis* Hampson, l. c., p. 123.)

9. *Micropaschia orthogrammalis* Hampson.Pl. IV, fig. 28, ♂, *paratype*.*Micropaschia orthogrammalis* Hampson *l. c.**Habitat*: Guiana.

Type in British Museum, French Guiana (Schaus *coll.*). Paratypes in U. S. N. M., and one specimen in the Carnegie Museum, from same source, which is figured.

Genus APOCERA Schaus.

Apocera SCHAU, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 660. (Genotype *A. costata* Schaus, *l. c.*)

10. *Apocera costata* Schaus. Pl. IV, fig. 12, ♂, *type*.*Habitat*: Central America.Type, male, in U. S. N. M., Esperanza, Costa Rica (Schaus *coll.*).11. *Apocera colorata* (Dyar). Pl. VII, fig. 22, ♀, *type*.*Arnatula*² (*sic*) *colorata* DYAR, Proc. U. S. N. M., XLVII, 1914, p. 122.*Habitat*: Panama.Type, female, in U. S. N. M., Canal Zone (Busck *coll.*).

² The generic name, *Anartula*, (Cf. Staudinger, *Iris*, VI, 1893, p. 78) genotype *Anartula* (*Noctuidea*) *melanophia* Staudinger, *l. c.*, was chosen, as its author informs us, because of a fancied resemblance to the genus *Anarta*. With specimens of *Anartula melanophia* before me, I am quite certain that none of the American forms, which have been by authors referred to this Asiatic genus, belong to it, and Dr. Dyar did well in setting up his genera *Anarnatula* and *Paranatula* for the reception of some of these forms.

Sir George F. Hampson in his fine paper upon the Classification of the *Pyrallidæ* (Trans. Ent. Soc. Lond., 1896, pp. 451-550), has by an odd transposition of letters misspelled the name *Anartula*, writing it *Arnatula* (*sic*), and he has almost invariably been followed by others, who have failed to detect the error, which is perpetuated by Dr. Dyar in the composite name *Anarnatula*. The latter name, however, according to the rules must stand.

While calling attention to this inadvertence, it may be worth while to note that in this same paper Hampson has consistently given the journal *Iris* as the place of the publication of Zeller's species, whereas *Isis*, a much earlier publication, should have been cited.

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Genus ONEIDA Hulst.

Oneida HULST, Entom. Amer., V, 1889, p. 63. (Genotype *Toripalpus lunulalis* Hulst.)

12. *Oneida lunulalis* (Hulst). Pl. V, fig. 13, ♀.

Toripalpus lunulalis HULST, Entom. Amer., III, 1887, p. 130.

Oneida lunulalis HULST, *ibidem*, V, 1889, p. 63; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 415.—BARNES and MCDUNNOUGH, Check-list, 1917, p. 145.—FORBES, Lep. of N. Y., etc., 1924, p. 606.

Tioga lunulalis HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 456.

Habitat: Eastern United States.

Type in Hulst Collection, Rutgers College, and in Brooklyn Museum; A. M. N. H., one specimen from New York; Carnegie Museum, several specimens from western Pennsylvania; U. S. N. M., several.

13. *Oneida luniferella* Hulst. Pl. V, fig. 26, ♀.

Oneida luniferella HULST, Canadian Entomologist, XXVII, 1895, p. 53.

Habitat: Colorado and southwestern United States.

Type and paratypes in Hulst Collection, Rutgers College, and in Brooklyn Museum. Represented in the U. S. N. M.

14. *Oneida pallidalis*³ Barnes and Benjamin.

Pl. V, fig. 29, ♂, *paratype*.

Oneida pallidalis BARNES and BENJAMIN, Cont. Nat. Hist. Lep. N. A., V, 1924, p. 199.

Habitat: Stockton, Utah.

Type in Barnes Collection.

Described as a local race of *O. luniferella* Hulst.

15. *Oneida diploa* Dyar. Pl. VII, fig. 34, ♂, *type*.

Oneida diploa DYAR, Insec. Insc. Menst., VIII, 1920, p. 198.

Habitat: Mexico.

Type and allotype, male and female, in U. S. N. M., Mexico (Müller coll.).

³ Dr. Barnes (*l. c.*) has referred this species to the *Phycitinae*, but I am informed by his associate, Mr. F. H. Benjamin, that this reference is now recognized as having been made in error, and that it is the intention to correct it in a future number of the "Contributions to the Nat. Hist. of the Lep. N. A."

16. **Oneida mejona** Schaus. Pl. IV, fig. 16, ♂, *paratype*.

Oneida mejona SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 209.

Habitat: Guatemala.

Type, male, from Guatemala, in Schaus Collection, U. S. N. M.

Genus **TIOGA** Hulst.

Tioga HULST, Entom. Amer., IV, 1888, p. 113.—HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 543. (Genotype *Tioga aplastella* Hulst, l. c.)

Tallula HULST, Entom. Amer., IV, 1888, p. 114.

Hemimatia (*partim*), LEDERER, Wien, Ent. Monatschr., 1863, p. 347.

17. **Tioga aplastella** Hulst. Pl. V, fig. 22, ♂.

Tioga aplastella HULST, l. c.; *ibidem*, V, 1889, p. 69; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 415.—HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 456.

Tetralopha aplastella BARNES and MCDUNNOUGH, Cont. Nat. Hist. Lep. N. A., III, 1916, p. 193; Check-list, 1917, p. 142.—Grossbeck, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 128.

Habitat: Canada, Colorado, Texas, Florida.

Type, a unique female, in Hulst Collection, Rutgers College, labelled "Colorado." Represented in U. S. N. M. The specimen we figure has been compared with Hulst's type, with which it exactly agrees, so far as the maculation and general appearance of the wings are concerned.

18. **Tioga atrifascialis** (Hulst). Pl. V, fig. 18, ♂.

Tallula atrifascialis HULST, Trans. Amer. Ent. Soc., XIII, 1886, p. 160; in Dyar's Cat. Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 415.—BARNES and MCDUNNOUGH, Cont. Nat. Hist. Lep. N. A., III, 1917, p. 220, pl. XVIII, fig 7; Check-list, 1917, p. 142.

Tioga atrifascialis HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 456, figure.

Habitat: Texas, Colorado.

Type, Hulst Collection, Rutgers College, and in Brooklyn Museum. A. M. N. H., one specimen, also labelled "type." Represented in U. S. N. M. The specimen we figure has been compared with Hulst's type, with which it closely agrees, but the apical and subterminal lines in this specimen are not as well defined as in the "type" at New Brunswick, N. J., in the Brooklyn Museum, and in the A. M. N. H.

The senior author therefore gives in text-figure 1 a drawing which he has made of the "type" in the Brooklyn Museum, which agrees with the "type" at Rutgers College.



Fig. 1. *Tioga atrifascialis* (Hulst). Type in Brooklyn Museum. Natural size.

19. ***Tioga fieldi*** (Barnes and McDunnough). Pl. IV, fig. 8, ♂.

Tallula fieldi BARNES and MCDUNNOUGH, Journ. N. Y. Ent. Soc., XIX, 1913, p. 163.

Habitat: Southern California, vicinity of San Diego.

Type and paratypes in Barnes Collection. Several specimens in A. M. N. H.; one specimen in Holland Collection, which we figure. It agrees with the type in the Barnes Collection. Represented in U. S. N. M.

20. ***Tioga watsoni*** (Barnes and McDunnough).

Pl. V, fig. 33, ♂, *paratype*. (See also text-fig. 2.)

Tallula atrifascialis GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 128 (*nec* Hulst).

Tallula watsoni BARNES and MCDUNNOUGH, Cont. Nat. Hist. Lep. N. A., III, 1917, p. 220, Pl. XVIII, fig. 6.

Habitat: Florida.

Type, Barnes Collection, from Florida. U. S. N. M., several. Represented in Carnegie Museum by example from Stemper, Florida.

21. ***Tioga olivescens*** (Druce). Pl. IV, fig. 1, ♂ (typical).

Stericta olivescens DRUCE, Ann. Mag. Nat. Hist. (7) IX, 1902, p. 326.

Habitat: Colombia, Guiana.

Type, male, from Valparaiso, Colombia (H. H. Smith *coll.*) in Collection Herbert Druce at time of description, but in hands (1924) of Mr. Janse, who reports it to be a species of the genus *Tioga*. We figure a specimen in the Schaus Collection in the U. S. N. M., which has been compared and agrees with the type.

22. *Tioga beroella* (Schaus). Pl. I, fig. 1, ♂.*Pococera beroella* SCHAUS, Ann. Mag. Nat. Hist. (8), IX, 1912, p. 657.*Tioga bunniotis* DYAR, Proc. U. S. N. M., XLIV, 1913, p. 321.*Habitat*: Central America to Bolivia.

The types of both *P. beroella* Schaus and *T. bunniotis* Dyar are in the U. S. N. M. Carn. Mus.: Costa Rica, one (Schaus coll.); Bolivia, one (Steinbach coll.); we figure the former.

23. *Tioga melazonalis* Hampson. Pl. I, fig. 22, ♀.

(See also text-fig. 2)

Tioga atrifascialis HAMPSON, Ann. Mag. Nat. Hist. (7), XIV, p. 132, (nec Hulst).*Tioga melazonalis* HAMPSON, *ibidem*, XVII, 1906, p. 123.*Habitat*: Bahamas, Bolivia.

Type in British Museum from Bahamas. Carn. Mus.: seven, Bolivia (Steinbach coll.). Represented in U. S. N. M.

24. *Tioga juanalisis* Schaus. Pl. I, fig. 23, ♂, *paratype*.

(See also text-fig. 2.)

Tioga juanalisis SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 9.*Habitat*: French Guiana.

Type, male, in U. S. N. M.; a small series of paratypes in the Carnegie Museum from the Mana River (S. M. Klages coll.).

This species is quite small and closely related to *T. melazonalis* Hampson, as well as to *T. watsoni* Barnes and McDunnough, and to *T. fovealis* Hampson. In the accompanying cut we have endeavored to show the distinctions which separate these species, which may best be discriminated from each other by means of the dark transverse median, and also the subterminal, bands of the fore wings.

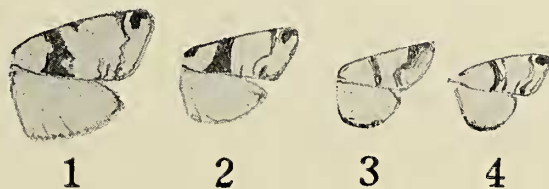


FIG. 2. Diagrammatic outline of wings of: 1. *T. melazonalis*; 2. *T. juanalisis*; 3. *T. fovealis*; 4. *T. watsoni*.

25. **Tioga fovealis** Hampson.Pl. IV, fig. 15, ♀, *paratype* (See also text-fig. 2.)*Tioga fovealis* HAMPSON, Ann. Mag. Nat. Hist. (7), XVII, 1906, p. 124.*Habitat*: Guiana.

Type, male, in British Museum, from French Guiana (Schaus *coll.*) U. S. N. M., paratypes, same source. Carnegie Museum, one (Klages *coll.*) Oyapok River, French Guiana. The specimen figured on our plate is a paratype in the Schaus Collection, U. S. N. M.

26. **Tioga tersilla** Dyar. Pl. VII, fig. 17, ♂, *type*.*Tioga tersilla* DYAR, Proc. U. S. N. M., XLVII, 1 14, p. 322.*Habitat*: Panama.U. S. N. M. type and paratype, males, Canal Zone (Busck *coll.*).27. **Tioga egvina** Schaus. Pl. IV, fig. 13, ♀, *type*.*Tioga egvina* SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 210.*Habitat*: French Guiana.Type, female, French Guiana, U. S. N. M. (Schaus and Barnes *coll.*).28. **Tioga rigualis** (Lederer).*Hemimattia rigualis* LEDERER, Wien. Ent. Monatschr., VII, 1863, p. 347, Pl. VII, fig. 13.*Habitat*: Venezuela.

Type in National Museum of Zoölogy, Berlin(?)

Genus **TETRALOPHA** Zeller.*Tetralopha* ZELLER, Isis, XI, 1848, p. 879. (Genotype *T. militella* Zeller, Isis, l. c., p. 880.)*Lanthaphe* CLEMENS, Proc. Acad. Nat. Sci. Phila., 1860, p. 207.*Benta* WALKER, Cat. Lep. Het. B. M., XXVII, 1863, p. 112.*Saluda* HULST, Entom. Amer., IV, 1888, p. 113.*Katona* HULST, *ibidem*.*Loma* HULST, *ibidem*, p. 114.*Wanda* HULST, *ibidem*.*Attacapa* HULST, *ibidem*, V, 1889, p. 71.

29. *Tetralopha militella* Zeller. Pl. V, fig. 4, ♂; fig. 5, ♀.

Tetralopha militella ZELLER, Isis, XI, 1848, p. 880.—GROTE, Bull. Geol. Surv. Terr., IV, 1878, p. 689; N. A. Ent., I, 1879, p. 10, Pl. II, fig. 5.—HULST, Entom. Amer., V, 1889, p. 71; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 416.—BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1914, pp. 217, 220; Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., 1924, p. 607.

Lanthaphe platanella CLEMENS, Proc. Acad. N. S. Phila., 1860, p. 207.—GROTE, Bull. Geol. Surv. Terr., IV, 1878, p. 691.—HULST, Entom. Amer., IV, 1888, p. 114; *ibidem*, V, 1889, p. 66; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 416.

Pococera militella HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 457.

Habitat: Eastern and southern United States.

The types, male and female, of *T. militella* Zeller, are in the National Museum of Zoölogy in Berlin, as stated by Barnes and McDun-
nough, *l. c.*

30. *Tetralopha asperatella* (Clemens). Pl. V, fig. 7, ♂; fig. 8, ♀.

Lanthaphe asperatella CLEMENS, Proc. Acad. N. S. Phila., XII, 1860, p. 207.

Benta expandens WALKER, Cat. Lep. B. M., XXVII, 1863, p. 112.—HULST, Trans. Am. Ent. Soc., XVII, 1890, p. 221; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 415.

Tetralopha asperatella GROTE, Geol. Surv. Terr., Bull. IV, 1878, p. 591.—BARNES and McDUNNOUGH, Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., p. 607.

Saluda asperatella HULST, Entom. Amer., IV, 1888, p. 113; *ibidem*, V, 1889, p. 67.

Pococera asperatella HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 457.

Form *nephebotella* HULST.

Loma nephelotella HULST, Entom. Amer., IV, 1888, p. 114.

Tetralopha clemensalis DYAR, Proc. Ent. Soc. Wash., VII, 1905, p. 31.—BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1914, p. 220.

Habitat: Eastern and southern United States.

The type of *T. asperatella* Clemens is in the Academy of Natural Sciences in Philadelphia; the type of *T. nephelotella* is in the Hulst Collection. There is a considerable series of specimens in the Carnegie Museum, collected in western Pennsylvania. The species is also well represented in the U. S. N. M.

31. *Tetralopha fuscolotella* Ragonot. Pl. V, fig. 31, ♂; fig. 32, ♀.

Tetralopha fuscolotella RAGONOT, Ann. Soc. Ent. France, (6) VIII, 1888, Séance, Oct. 10, p. cli.—BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1914, pp. 219-20; Check-list, 1917, p. 142.

Benta asperatella HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 415.

Habitat: Arizona, *fide* Ragonot.

Type, male, in Collection Ragonot, Muséum d'Histoire Naturelle, Paris. We give on our plate figures of a male and a female kindly lent us by Dr. Barnes. "The male agrees well with a specimen compared with Ragonot's type by Dr. McDunnough." Foster H. Benjamin.

32. *Tetralopha tiltella* (Hulst). Pl. V, fig. 44, ♂; fig. 45, ♀.

Wanda tiltella HULST, Entom. Amer., IV, 1888, p. 114; *ibidem*, V, p. 70; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 416.

Tetralopha melanogrammos DYAR, Trans. Ent. Soc. Wash., VII, 1905, p. 31.

Tetralopha tiltella BARNES and MCDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, pp. 219-220; Check-list, 1917, p. 142.

Habitat: Texas.

Type and paratypes in Hulst Collection; also in Brooklyn Museum. We figure a male and a female from the Barnes Collection; the male agreeing closely with the type in the Hulst Collection, as Mr. Benjamin writes me, and as I know by personal inspection; the female agreeing perfectly with a specimen of that sex in the Hulst Collection, which has been sent me by Professor Headlee for comparison and study.

This species is the genotype of the genus *Wanda* Hulst. A careful examination does not reveal any characteristics, which should cause the species to be separated from others, which are referred to *Tetralopha* (*sensu latiore*). The genus *Wanda* sinks into the synonymy, as do numerous other genera proposed by Dr. Hulst.

In quite recent times Dr. Schaus has allocated to the genus *Wanda* a number of neotropical species, which upon study do not appear to me to be referable to *Tetralopha* nor to *Pococera*. Since *Wanda*, which has served as a receptacle for these forms, sinks as a synonym, I have elsewhere erected for their reception a genus under the name *Nouanda*. (Cf. p. 79) W. J. HOLLAND.

33. *Tetralopha robustella* Zeller. Pl. V, fig. 12, ♀.

Tetralopha robustella ZELLER, Isis, XI, 1848, p. 881.—GROTE, Geol. Surv. Terr., Bull. IV, 1878, p. 690 (transcribes the original description of Zeller).—HULST, Entom. Amer., V, 1889, p. 71; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 416.—BARNES and MCDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1914, p. 219; Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., 1924, p. 608.

Pococera robustella HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 457.

Tetralopha diluculella GROTE, No. Am. Ent., I, 1880, pp. 60 and 68, Pl. V, fig. 10; Report U. S. Dept. Agric., 1880, p. 263.—BARNES and McDUNNOUGH, Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., pp. 607, 608.

Pococera diluculella, as synonym of *P. robustella*, Hampson, l. c.

Benta diluculella HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 415 (Cited as form of *B. melanogrammos* Zeller).

Toripalpus talleolalis HULST, Trans. Am. Ent. Soc., XIII, 1886, p. 160; Entom. Amer., III, 1887, p. 22.

Saluda talleolalis HULST, Entom. Amer., V, 1889, p. 67 (Cited by Hulst as being a synonym of *Saluda melanogrammos* Zeller).

Habitat: New England to the Gulf States and westward.

The types of *T. robustella* Zeller and *T. luculella* Grote are in the British Museum. A series in the U. S. N. M. In the A. M. N. H., four examples, labelled *diluculella*. Carn. Mus., several.

Barnes and McDunnough have followed Hampson in identifying *T. diluculella* with *T. robustella* Zeller. Hulst regarded *diluculella* as a variant of the species named *melanogrammos* by Zeller. In its proper place we give a figure of the type of *melanogrammos* and by reference to this it may be seen that there is no close resemblance between the present species and *melanogrammos*. Hulst's view is still reflected in his collection, where *diluculella* is placed under *melanogrammos*. Hampson had in the Zeller Collection, which is in the British Museum, the type of *robustella* Zeller, and the type of *diluculella* Grote, and sank the latter as a synonym of the former. We follow Hampson rather than Hulst.

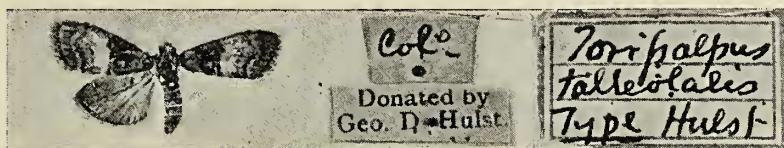


FIG. 3. Type of *Tetralopha talleolalis* (Hulst) from photograph supplied by Messrs. Barnes and Benjamin.

Hulst sank the name *talleolalis* as a synonym of *melanogrammos*. Through the kindness of Dr. Barnes and his associate, Mr. F. H. Benjamin, we are able to here reproduce a photograph of a type-specimen of *talleolalis* labelled in the hand-writing of Hulst. The "type" *talleolalis* shown in fig. 3 is unmistakably a male of the insect to which Zeller gave the specific name *robustella*. It does not differ in any essential respect from males contained in the series labelled "*T. robustella* var. *diluculella* Grote," bred from larvæ feeding

upon pine, which are contained in the U. S. N. M. Mr. Benjamin in letters has suggested that Hulst's *talleolalis* may possibly be a valid species. The writer of these lines cannot agree with this view. We have not figured a male of *robustella* Zeller, but a comparison of the figure of the type of Hulst's *talleolalis* with the figure of the female *diluculella*, which we give on Pl. V, fig. 12, will serve to show that in all essential features the two, *robustella* = *diluculella* and *talleolalis*, are the same.

Before concluding this brief discussion of the synonymy of this species it may be proper to point out that Forbes in his recent work, entitled "The Lepidoptera of New York and Adjacent States," cites *diluculella* as a variety under both *T. robustella* and *T. melanogrammos*. It cannot well be a variety of both species. W. J. HOLLAND.

34. *Tetralopha subcanalis* (Walker).

Pl. V, fig. 6, ♂; fig. 37, ♀, *paratype* (*querciella*).

Nephoteryx subcanalis WALKER, Cat. Lep. Het. B. M., XXVII, 1863, p. 56.

Pococera subcanalis HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 457.—HULST, in Dyar's List, Bull. U. S. N. M., LII, 1902, p. 417.

Tetralopha subcanalis BARNES and McDUNNOUGH, Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., p. 607.—GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 128.

Tetralopha militella HULST, (*nec* Zeller) Entom. Amer., V, 1889, p. 71; in Dyar's List, Bull. U. S. N. M., LII, 1902, p. 416 (*vide* Forbes, *l. c.*).

Tetralopha querciella BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1913, p. 180, Pl. II, figs. 7, 8.—DYAR, Insec. Insc. Menst., I, 1913, p. 106.—GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 128.

Habitat: New England to Florida and westward.

Type of *T. subcanalis* in British Museum; of *T. querciella* in Barnes Collection. Carn. Mus., Holland Collection, males from Texas. U. S. N. M.: a considerable series from various localities ranging from North Carolina southward and westward. We figure a male from the Holland Collection and a female from the Barnes Collection.

35. *Tetralopha melanogrammos* Zeller.

Tetralopha melanogrammos ZELLER, Verh. Zoöl. Bot. Ges. Wien, 1872, p. 546, Pl. III, figs. 24a, 24b.—GROTE, Geol. Surv. Terr., Bull. IV, 1877, p. 689.—

BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., 1914, p. 218; Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., 1824, p. 67.

Saluda melanogrammos HULST, Ent. Amer., V, 1889, p. 67.

Pococera melanogrammos HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 457.

Benta melanogrammos HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 413.—GROSSBECK, Ins. Fla., Bull. A. M. N. H., XXXVII, 1917, p. 128.

Habitat: Said to range from New England to Colorado and southward to Central America.

Type in Museum of Comparative Zoölogy, Cambridge, Mass. Through the kindness of Messrs. Barnes and Benjamin, we are permitted to here reproduce in text-figure 4 an enlarged photograph of Zeller's type. The specimen was originally sent to Zeller by Dr. Packard and was later returned to Dr. Packard with the type-label attached. In the Barnes Collection there is a series of specimens from Kerrville, Texas, identified as this species. It is not represented in the U. S. N. M. nor the Carn. Mus. The senior author is strongly inclined to regard the species as identical with *T. texanella* Ragonot. Should this suspicion be confirmed, *texanella* will sink as a synonym of *melanogrammos*.



FIG. 4. Type of *T. melanogrammos* Zeller. (Enlarged)

35. ***Tetralopha scortealis*** (Lederer). Pl. V, fig. 34, ♂; fig. 35, ♀.

Hemimatia scortealis LEDERER, Wien. Ent. Monatschr., VII, 1863, p. 347, Pl. VII, fig. 12.

Pococera scortealis HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 457.

Tetralopha scortealis BARNES and MCDUNNOUGH, Check-list, 1917, p. 142.

Habitat: Said to range from the Carolinas southward to Central America.

The location of the type is not known to us, but it probably is either in the Natural History Museum in Vienna, or in Berlin.

Through the kindness of Messrs. Barnes and Benjamin we are permitted to figure a male and a female, which agree with specimens in the British Museum, which are labelled *scortealis*, and were originally examined carefully by Dr. McDunnough. The species is not found in either the U. S. N. M. or the Carn. Mus.

37. *Tetralopha slossoni* (Hulst). Pl. V, fig. 46, ♀.

Benta slossonii HULST, Can. Ent., XXVII, 1895, p. 56.

Tetralopha slossonii HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 416.—BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., III, 1917, p. 220; Check-list, 1917, p. 142.

Tetralopha robustella GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 128.

Habitat: Florida.

Type, female, in Hulst Collection, Rutgers College, and in Brooklyn Museum. Through the great kindness of Messrs. Barnes and Benjamin we are able to give upon our plate a figure of a female, which agrees with Hulst's type. It was reared from larva at Lakeland, Florida. The species is not represented in the U. S. N. M., the A. M. N. H., or the Carn. Mus.

38. *Tetralopha texanella* (Ragonot). Pl. V, fig. 21, ♂.

Pococera texanella RAGONOT, Ann. Soc. Ent. France, (6) VIII, 1888, Séance Oct. 10, p. clii.

Pococera subcanalis HULST (*nec* Walker) in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 457.

Tetralopha texanella BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1914, p. 220; Check-list, 1917, p. 142.

Habitat: Texas.

Types, male and female, in Ragonot Collection, Muséum National d'Histoire Naturelle, Paris. There is a small series in the U. S. N. M., one of which we figure. It agrees completely with specimens in the Collection of Dr. Barnes, which have been compared with Ragonot's types.

39. *Tetralopha callipeplella* Hulst. Pl. V, figs. 20 and 23, ♀ ♀.

Tetralopha callipeplella HULST, Entom. Amer., IV, 1888, p. 114.—BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1914, p. 220; Check-list, 1917, p. 142.

Attacapa callipeplella HULST, *ibidem*, V, 1889, p. 71; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 417.

Habitat: Texas, Arizona.

Type in Hulst Collection, Rutgers College, and in Brooklyn Museum. There is a small series in the U. S. N. M. from Texas and Arizona. Mr. Foster H. Benjamin points out in his correspondence

that there is a near relationship between *T. texanella* and *T. callipeplella* Hulst, though he is upon the whole inclined to regard the two forms as distinct. There are six examples in the Hulst Collection, only one of which is designated as the "type." The specimen we figure is contained in the U. S. N. M., and was determined by Dr. Dyar after comparison with the specimens in the Hulst Collection, which determination has been verified by the senior author of this paper. The "type" in the Brooklyn Museum has the median area of the fore wing paler than in other specimens, but the markings are the same.

40. *Tetralopha speciosella* (Hulst).

Benta speciosella HULST, Journ. N. Y. Ent. Soc., VIII, 1901, p. 222; in Dyar's List, Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 415.—(?) GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 128.

Tetralopha speciosella BARNES and McDUNNOUGH, Check-list, 1917, p. 142.

Habitat: Santa Rita Mts., Arizona, New Mexico, Texas, Florida.

Type in U. S. N. M., (E. A. Schwarz coll.). The national collection contains a series from New Mexico and Arizona. Grossbeck lists the species from Florida.



Fig. 5. *Tetralopha speciosella* (Hulst). Drawing (natural size) of paratype in U. S. N. M., compared and agreeing with type.

41. *Tetralopha floridella* (Hulst). Pl. V, fig. 25, ♀.

Benta floridella HULST, Journ. N. Y. Ent. Soc., VIII, 1901, p. 221; in Dyar's List, l. c. *supra*.—GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 128.

Tetralopha floridella BARNES and McDUNNOUGH, Check-list, p. 142.

Habitat: Florida.

Type in U. S. N. M., (Dyar coll.); a large series from Palm Beach, Florida.

42. *Tetralopha humerella* Ragonot. Pl. V, fig. 9, ♀.

Tetralopha humerella RAGONOT, Ann. Soc. Ent. France, (6) VIII, 1888, Séance Oct. 10, 1888, p. cli.—HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 416.—BARNES and McDUNNOUGH, Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., p. 608.

Tetralopha formosella HULST, Can. Ent., XXXII, 1900, p. 169.—BARNES and McDUNNOUGH, Check-list, 1917, p. 142.—FORBES, *l. c.*, p. 608.

Habitat: Pennsylvania, Missouri, Texas.

Type, male, of *T. humerella* in Ragonot Collection, Muséum National d'Histoire Naturelle, Paris; of *T. formosella* in U. S. N. M. The specimen figured on the plate was taken in Pittsburgh at light.

43. ***Tetralopha tertiella*** (Dyar). Pl. VII, fig. 21, ♂, *paratype*.

Pococera tertiella DYAR, Proc. Ent. Soc. Wash., VII, 1905, p. 32.

Tetralopha tertiella BARNES and McDUNNOUGH, Check-list, 1917, p. 142.

Habitat: Texas.

Type, male, in U. S. N. M. (H. S. Barber *coll.*).

44. ***Tetralopha baptisiella*** Fernald. Pl. V, fig. 16, ♂.

Tetralopha baptisiella FERNALD, Entom. Amer., III, 1887, p. 128.—BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1914, p. 220; Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., 1924, p. 608.

Wanda baptisiella HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 416.

Habitat: New York to Missouri and southward.

Types, two males and two females in the Fernald Collection. We figure a male in the Engel Collection in the Carn. Mus., which was taken at Decatur, Macon County, Illinois. The species is represented by a small series in the U. S. N. M., the A. M. N. H., and other collections.

45. ***Tetralopha euphemella*** (Hulst). Pl. V, fig. 10, ♂; fig. 11, ♀.

Katona euphemella HULST, Entom. Amer., IV, 1888, p. 113.

Tetralopha euphemella HULST, *ibidem*, V, 1889, p. 71; in Dyar's List, p. 416.—BARNES and McDUNNOUGH, Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., p. 608.

Pococera variella RAGONOT, Ann. Soc. Ent. France, (6) VIII, 1888, Séance Oct. 10, 1888, p. cli.—HULST, in Dyar's List, p. 416 (*Cf.* Barnes and McDunnough, Check-list, 1917, p. 142, No. 5497).

Pococera melanographella RAGONOT, Ann. Soc. Ent. France, (6) VIII, 1888, Séance Oct. 10, 1888, p. clii.—HULST, in Dyar's List, p. 416 (*Cf.* Barnes and McDunnough, Check-list, 1917, p. 142, No. 5497).

Habitat: Missouri, Texas, and southwestern States.

"Type" of *T. euphemella* in Hulst Collection, Rutgers College; also in Brooklyn Museum. Represented in U. S. N. M.

46. **Tetralopha thoracicella** Barnes and Benjamin.

Pl. V, fig. 36, ♂, *paratype*.

Tetralopha thoracicella BARNES and BENJAMIN, Cont. Nat. Hist. Lep. N. A., V, 1924, p. 197.

Habitat: Pima County, Arizona.

Type and paratypes in Barnes Collection. We are permitted to figure one of the paratypes, which agrees exactly with the type, a photograph of which has been kindly sent us by Mr. Benjamin.

47. **Tetralopha griseella** Barnes and Benjamin.

Pl. V, fig. 42, ♂; fig. 43, ♀, *paratypes*.

Tetralopha griseella BARNES and BENJAMIN, Cont. Nat. Hist. Lep. N. A., V, 1924, p. 198.

Habitat: Arizona.

Type, male; allotype, female; and paratypes in Collection Barnes. Mr. Benjamin writes that the specimens we are allowed to figure agree exactly with the types, and proves the assertion by sending us excellent photographs of the types.

48. **Tetralopha arizonella** Barnes and Benjamin.

Pl. V, fig. 40, ♂; fig. 41, ♀, *paratypes*.

Tetralopha arizonella BARNES and BENJAMIN, Cont. Nat. Hist. Lep. N. A., V, 1924, p. 196.

Habitat: White Mountains, Arizona.

Type, male; allotype, female; and paratypes in Collection Barnes. The specimens we are permitted to figure on Pl. V agree exactly with the types, as shown by photographs of the same, which are before us.

49. **Tetralopha dolorosella** Barnes and Benjamin.

Tetralopha dolorosella BARNES and BENJAMIN, Cont. Nat. Hist. Lep. N. A., V, 1924, p. 195.

Habitat: Colorado Springs, Colorado.

The type is a unique male in the Collection of Dr. Barnes. Through

the kindness of Messrs. Barnes and Benjamin we are permitted to reproduce herewith a photograph of this specimen.



FIG. 6. *T. dolorosella* Barnes and Benjamin, ♂, type.

50. ***Tetralopha provoella*** Barnes and Benjamin.

Pl. V, fig. 28, ♂, *paratype*.

Tetralopha provoella BARNES and BENJAMIN, Cont. Nat. Hist. Lep. N. A., V, 1924, p. 195.

Habitat: Provo Canyon, Utah.

Type, male, and paratypes in Collection Barnes. The male paratype, which we give upon the plate, agrees exactly with the type.

51. ***Tetralopha spaldingella*** Barnes and Benjamin.

Pl. V, fig. 30, ♂, *paratype*.

Tetralopha spaldingella BARNES and BENJAMIN, Cont. Nat. Hist. Lep. N. A., V, 1924, p. 194.

Habitat: Utah.

Type, male; allotype, female; and paratypes in Collection Barnes. The paratype we show on our plate is in perfect agreement with the type.

52. ***Tetralopha notabilis*** (Schaus). Pl. I, fig. 2, ♂, *paratype*.

Pococera notabilis SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 659.

Habitat: Central America.

Types in Schaus Collection in U. S. N. M., from Costa Rica. Two males in Carn. Mus. from Guatemala, (Schaus *coll.*).

53. ***Tetralopha vandella*** (Dyar). Pl. IV, fig. 39, ♂, *type*.

Pococera vandella DYAR, Proc. U. S. N. M., XLVII, 1914, p. 403.

Habitat: Mexico.

Type, allotype, and paratypes in U. S. N. M.

54. **Tetralopha vanenga** Schaus. Pl. I, fig. 27, ♂.

Tetralopha vanenga SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 210.

Habitat: Central America.

Type, male, in U. S. N. M. from Cayuga, Guatemala. Carn. Mus.: one male from Bolivia, (Steinbach *coll.*); one female from French Guiana, (S. M. Klages *coll.*).

55. **Tetralopha aelredella** Schaus. Pl. IV, fig. 43, ♂, *type*.

Tetralopha aelredella SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 211.

Habitat: French Guiana.

Type, male, in U. S. N. M.

56. **Tetralopha sabbasa** Schaus. Pl. IV, fig. 47, ♂, *type*.

Tetralopha sabbasa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 211.

Habitat: Mexico.

Type, male, in U. S. N. M.

57. **Tetralopha nigribasalis** (Hampson). Pl. IV, fig. 48, ♀.

Pococera nigribasalis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 124.

Pococera robustella DRUCE, Biol. Cent.-Amer., Lep. Het., II, p. 199 (*partim*) (*nec* Zeller).

Habitat: Central America.

Type, female, in Brit. Mus., from Guatemala. In U. S. N. M.

58. **Tetralopha hemimelas** (Hampson). Pl. IV, fig. 29, ♀.

Pococera hemimelas HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 125.

Pococera basigera DYAR, Proc. U. S. N. M., XLVII, 1914, p. 322.

Habitat: Panama.

Type, female, in Brit. Mus. from Panama; type of *P. basigera* Dyar in U. S. N. M. from same region.

59. **Tetralopha rufitinctalis** (Hampson).

Pococera rufitinctalis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 125.

Habitat: Paraguay.

Type, female, in Brit. Mus. Thus far not recognized in any collection in the United States.

60. **Tetralopha cataldusa** Schaus. Pl. I, fig. 28, ♂, *type*.

Tetralopha cataldusa SCHAUS, Ann. Car. Mus., XVI, 1925, p. 10.

Habitat: Bolivia.

Type, male, unique, in Carn. Mus. (Steinbach *coll.*).

61. **Tetralopha hermasalis** Schaus.

Pl. I, fig. 18, ♂, *type*; fig. 19, ♀, *allotype*.

Tetralopha hermasalis SCHAUS, Ann. Car. Mus., XVI, 1925, p. 10.

Habitat: Bolivia.

Type, male; allotype, female; and two paratypes in Carn. Mus.; two paratypes in U. S. N. M.

62. **Tetralopha mediosinalis** (Hampson).

Pococera mediosinalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 126.

Habitat: Colombia.

Type, male, in Brit. Mus. Thus far not identified in any collection in the United States.

63. **Tetralopha basilissa** Schaus. Pl. IV, fig. 44, ♂, *type*.

Tetralopha basilissa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 212.

Habitat: Mexico.

Type, male, in U. S. N. M.

64. **Tetralopha cuthmana** Schaus. Pl. IV, fig. 11, ♀, *type*.

Tetralopha cuthmana SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 212.

Habitat: Tucuman, Argentina.

Type, female, in Schaus Collection, U. S. N. M.; paratype in Dognin Collection.

65. **Tetralopha irrorata** Schaus. Pl. IV, fig. 20, ♀, *type*.

Tetralopha irrorata SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 657.

Habitat: Costa Rica.

Type, female, in Schaus Collection in U. S. N. M.

66. **Tetralopha agnesa** Schaus. Pl. IV, fig. 10, ♀, *type*.

Tetralopha agnesa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 213.

Habitat: Guatemala.

Type, female, in U. S. N. M.

67. **Tetralopha polialis** (Hampson).

Pococera polialis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 126.

Habitat: Jamaica.

Type, female, in Brit. Mus. So far does not appear to be represented in any collection in the United States.

68. **Tetralopha gybriana** Schaus. Pl. I, fig. 26, ♀, *type*.

Tetralopha gybriana SCHAUS, Ann. Car. Mus., XVI, 1925, p. 11.

Habitat: Bolivia.

Type, female, in Carn. Mus. (Steinbach *coll.*).

69. **Tetralopha scabridella** Ragonot. Pl. IV, fig. 46, ♂.

Tetralopha scabridella RAGONOT, Ann. Soc. Ent. France, (6) VIII, Séance Sept. 12, 1888, p. cxxxviii.

Habitat: Porto Rico.

Types, male and female in Ragonot Collection, Muséum National d'Histoire Naturelle, Paris. One example in the U. S. N. M., which is figured on our plate.

70. **Tetralopha iogalis** Schaus. Pl. IV, fig. 35, ♀, *paratype*.

Tetralopha iogalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 213.

Habitat: Cuba.

Type, female, in U. S. N. M.

71. **Tetralopha jovita** Schaus. Pl. IV, fig. 18, ♂, *type*.

Tetralopha jovita SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 214.

Habitat: Cuba.

Type, male, in U. S. N. M.

72. **Tetralopha albiceps** (Hampson).

Pococera albiceps HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 126.

Habitat: Argentina.

Type, male, in Brit. Mus. Thus far apparently not contained in any of the collections in the United States.

73. **Tetralopha cyrilla** Schaus. Pl. IV, fig. 21, ♀, *type*.

Tetralopha cyrilla SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 214.

Habitat: Cuba.

Type, female, in U. S. N. M.

74. **Tetralopha internigralis** (Dognin).

Pococera internigralis DOGNIN, Ann. Soc. Ent. Belg., LIII, 1909, p. 91.

Habitat: French Guiana.

Type, male, in Collection Dognin.

Not identified in any of the material studied.

75. **Tetralopha pallidifusa** (Dognin).

Pococera pallidifusa DOGNIN, Ann. Soc. Ent. Belg., LVII, 1913, p. 416.

Habitat: Santo Domingo, Curabaya, southeastern Peru.

Type, female, in Collection Dognin.

76. **Tetralopha arciferalis** (Hampson).

Pococera arciferalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 127.

Habitat: San Antonio, western Colombia.

Type, male, and male paratype, in British Museum.

Genus **AURADISA** Walker.

Auradisa WALKER, Cat. Lep. Het. B. M., XXXIV, 1865, p. 1504. (Genotype *A. gelidalis* Walker, *ibidem*, p. 1505). Hampson includes as a section under *Pococera*, Trans. Ent. Soc. Lond., 1896, p. 497.

77. **Auradisa gelidalis** Walker.

Auradisa gelidalis WALKER, Cat. Lep. Het. B. M., XXXIV, 1865, p. 1505.—HAMPSON, *l. c.*

Myelois subalbalis WALKER, *ibidem*, XXXV, 1866, p. 1714.—HAMPSON, *l. c.*

Habitat: Honduras.

Type in British Museum. We do not seem to possess this species in any of the North American collections which have been consulted.

78. *Auradisa*(?) *pemphusalis* (Druce).

Pococera pemphusalis DRUCE, Biol. Centr.-Amer., Lep. Het., II, 1899, p. 548, pl. 100, fig. 9.

Habitat: Mexico.

Type, male, in Godman Collection in the British Museum. Thus far no specimen agreeing with the description and figure given by Druce has turned up in the material we have examined.

79. *Auradisa nigrilunalis* (Dognin). Pl. I, fig. 5, ♂.

Pococera nigrilunalis DOGNIN, Mém. Soc. Ent. Belg., XXII, 1913, p. 53.

Habitat: French Guiana.

Type, female, from the Maroni River, in Collection Dognin. A male specimen, belonging to the U. S. N. M., identified by Dr. Schaus as belonging to this species, has been figured upon our plate.

80. *Auradisa adolescens* (Dyar). Pl. I, fig. 3, ♂.

Auradisa adolescens DYAR, Proc. U. S. N. M., XLVII, 1914, p. 323.

Habitat: Panama, Guiana.

Types, male and female, in U. S. N. M. from Panama. The Carn. Mus. has one male specimen, collected in French Guiana by Klages, which has been compared by Dr. Schaus with the types and found to agree. This specimen is figured upon our plate.

81. *Auradisa fechina* Schaus. Pl. VII, fig. 31, ♀, *type*.

Auradisa fechina SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 214.

Habitat: French Guiana.

Type, female, in U. S. N. M.

82. *Auradisa stenipteralis* (Hampson). Pl. I, fig. 33, ♂.

Pococera stenipteralis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 127.

Habitat: Guiana.

Type, male, in Brit. Mus., from French Guiana, (Schaus *coll.*). Paratypes in U. S. N. M. from same source. Carn. Mus.: twenty-three specimens, (S. M. Klages *coll.*) on Oyapok River, French Guiana.

83. **Auradisa marmorata** (Schaus). Pl. VI, fig. 1, ♂, *type*.

Pococera marmorata SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1913, p. 659.

Habitat: Costa Rica.

Type, male, in Schaus Collection, U. S. N. M.

84. **Auradisa olivescens** (Schaus). Pl. I, fig. 25, ♂.

Pococera olivescens SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 659.

Habitat: Central America and northern South America.

Type, male, Costa Rica, Schaus Collection in U. S. N. M., and also paratypes. Carn. Mus.: seven, French Guiana (S. M. Klages *coll.*). We figure a specimen which agrees with the type.

85. **Auradisa soteris** Schaus. Pl. I, fig. 31, ♂.

Auradisa soteris SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 215.

Habitat: Guiana, Brazil.

Type, male, in U. S. N. M. from French Guiana. Carn. Mus.: one male from Hyutanahan, Brazil (S. M. Klages *coll.*), which agrees with the type, and is shown on our plate.

86. **Auradisa tresaina** Schaus. Pl. I, fig. 35, ♂.

Auradisa tresaina SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 215.

Habitat: French Guiana.

Type, male, in U. S. N. M. Carn. Mus.: one male, Oyapok River, French Guiana (S. M. Klages *coll.*). This specimen, which agrees with the type, is shown on our plate.

87. **Auradisa remberta** Schaus. Pl. VII, fig. 26, ♂, *type*.

Auradisa remberta SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 216.

Habitat: Guiana.

Type, male, in U. S. N. M. from Maroni River, French Guiana, (Schaus *coll.*). Paratype in Collection Dognin.

88. **Auradisa brendana** Schaus. Pl. I, fig. 36, ♀, *type*.

Auradisa brendana SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 12.

Habitat: Guiana.

Type, female, in Carn. Mus. from Oyapok River, French Guiana (S. M. Klages *coll.*).

89. **Auradisa guianica** Schaus. Pl. I, fig. 34, ♀, *type*.

Auradisa guianica SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 12.

Habitat: French Guiana.

Type, female, in Carn. Mus. (S. M. Klages *coll.*); paratype, female, in U. S. N. M., lacking abdomen, removed for dissection.

90. **Auradisa chrysoderas** (Dyar). Pl. VII, fig. 27, ♀, *type*.

Pococera chrysoderas DYAR, Insec. Insc. Menst., V, 1917, p. 90.

Habitat: British Guiana.

Type, female, in U. S. N. M. (H. W. B. Moore *coll.*).

91. **Auradisa albimedium** (Schaus). Pl. VI, fig. 2, ♀, *type*.

Pococera albimedium SCHAUS, Ann. Mag. Nat. Hist., (8) IX, 1912, p. 656.

Habitat: Costa Rica.

Type, female, in Schaus Collection, U. S. N. M.

92. **Auradisa corumba** Schaus. Pl. I, fig. 29, ♂.

Auradisa corumba SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 216.

Habitat: Brazil, Bolivia.

Types, male and female, from Corumbá, Brazil, Cornell University Mus. (Forbes *coll.*). Paratypes in U. S. N. M.; Carn. Mus.: six, from Bolivia (Steinbach *coll.*).

93. **Auradisa corumbina** Schaus. Pl. I, fig. 32, ♀, *type*.

Auradisa corumbina SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 11.

Habitat: Bolivia.

Type, female, in Carn. Mus. (Steinbach *coll.*).

Genus **TANCOA** Schaus.

Tancoa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 217. (Genotype *Deuterollyta calitas* Druce = *Pococera sphærophora* Dyar.)

94. **Tancoa calitas** (Druce). Pl. IV, fig. 17, ♂.

Deuterollyta calitas DRUCE, Biol. Cent.-Amer., Lep. Het., II, 1899, p. 647, Pl. 100, fig. 8.

Pococera sphærophora DYAR, Proc. U. S. N. M., XLVII, 1914, p. 323.

Habitat: Mexico, Panama.

The type of *calitas* is in the Godman Collection in the British

Museum; the type of *sphærophora* Dyar is in the U. S. N. M. The specimen figured on our plate was taken by Townsend in southern Mexico and is in the Holland Collection in the Carnegie Museum.

95. **Tancoa nigriplaga** (Dognin). Pl. I, fig. 10, ♂.

Auradisa nigriplaga DOGNIN, Ann. Soc. Ent. Belg., LIV, 1910, p. 118.

Habitat: French Guiana.

Type, female, in Collection Dognin; one example in U. S. N. M.; two in Carn. Mus. (S. M. Klages *coll.*).

96. **Tancoa quiriguana** Schaus. Pl. VI, fig. 6, ♂, *paratype*.

Tancoa quiriguana SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 218.

Habitat: Guatemala.

Type, male, in Schaus Collection, U. S. N. M.

97. **Tancoa attenualis** (Hampson). Pl. I, fig. 14, ♂.

Macalla attenualis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 138.

Habitat: Guiana, Brazil, Bolivia.

Types, male and female, in Brit. Mus., the male from Bahia, the female from British Guiana. Carn. Mus.: a pair from Bolivia (Steinbach *coll.*). Represented in U. S. N. M.

98. **Tancoa erlupha** Schaus. Pl. I, fig. 12, ♀.

Tancoa erlupha SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 217.

Habitat: Guiana, Bolivia.

Type, female, in U. S. N. M. from French Guiana. A pair in Carn. Mus. from Bolivia (Steinbach *coll.*).

99. **Tancoa crinita** (Schaus). Pl. I, fig. 9, ♂.

Pococera crinita SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 657.

Tancoa crinita SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 217.

Habitat: Costa Rica, Guatemala.

Type, female, from Costa Rica, in U. S. N. M. (Schaus *coll.*). Carn. Mus.: one specimen from Guatemala (Schaus *coll.*).

100. **Tancoa brachypalpia** (Dognin).

Pococera brachypalpia DOGNIN, Het. Nouv. Amér. Sud: fasc. I, 1910, p. 43.

Habitat: French Guiana.

Type, male, in Collection Dognin from St. Laurent du Maroni. Up to date not recognized in any material in North American collections.

101. *Tancoa ubalda* Schaus. Pl. I, fig. 11, ♀, *type*.

Tancoa ubalda SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 13.

Habitat: Bolivia.

Type, female, from Bolivia, in Carn. Mus. (Steinbach *coll.*).

102. *Tancoa silavia* Schaus. Pl. I, fig. 13, ♂, *type*.

Tancoa silavia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 13.

Habitat: Bolivia.

Type, male, in Carn. Mus. (Steinbach *coll.*).

103. *Tancoa metaxanthalis* (Hampson). Pl. I, fig. 15, ♂.

Pococera metaxanthalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 127.

Habitat: Colombia, Brazil.

Type, female, from Colombia in Brit. Mus. One example, male, in Carn. Mus. from Rio Purús, Brazil (S. M. Klages *coll.*).

Genus NOUANDA* nov.

(Genotype, *Wanda agatha* Schaus, Proc. Ent. Soc. Wash., XXIV, 1922, p. 220.)

♂. Labial palpi having the second joint greatly elongated, upturned, produced far beyond the frons. Maxillary palpi slender, elongated, and in the typical species, *agatha*, with the brush-like extremity protruding beyond the third joint, in *nocturna* reaching to, but not beyond, the third joint. The appendage of the antenna in the male is leaf-like when viewed laterally, with a well-marked central shaft, resembling the mid-rib of a leaf, the scales diverging from this on either side, the two appendages being flat and closely appressed, and directed upward and backward. Veins 4 and 5 in both fore and hind wings stalked Vein 6 on the under side of the forewing near the cell clothed with long setose scales directed outwardly. Tufts of raised scales on the upper side of the forewing on the discocellulars and near the base. ♀. Unknown.

Type, *Wanda agatha* Schaus, *l. c.*

The genus *Wanda* Hulst, being a synonym of *Tetralopha*, the senior author has been constrained to set up the genus *Nouanda* for the reception of three species recently described by Mr. Schaus from

* *Nouanda*: *N*, negative; *ouanda*, latinization of *Wanda*.

South America. Two of these, *N. agatha* (Schaus) and *N. nocturna* (Schaus) agree fairly well in the neuration (although not in the outline) of their wings and in the structure of the palpi and the antennæ. The third species *N. sadotha* (Schaus) is provisionally referred to the new genus, but it does not agree so well with the others, and upon a final revision of the group will probably have to be placed in another genus.

104. **Nouanda agatha** (Schaus). Pl. VI, fig. 8, ♂, *type*.

Wanda agatha SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 220.

Habitat: Guatemala.

Type, male, in U. S. N. M.

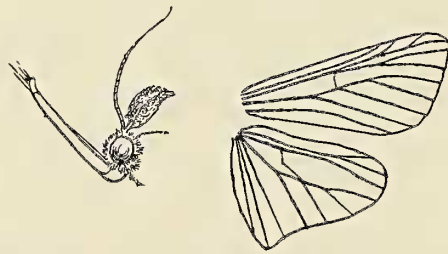


FIG. 7. Neuration of wings and lateral view of head of *N. agatha* (Schaus).

105. **Nouanda nocturna** (Schaus). Pl. VI, fig. 9, ♂, *type*.

Wanda nocturna SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 219.

Habitat: French Guiana, Brazil.

Type, male, U. S. N. M., from French Guiana; also a pair from Manaos, Brazil, presented by Cornell University.

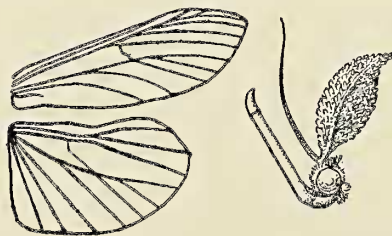


FIG. 8. Neuration of wings and lateral view of head of *N. nocturna* (Schaus). (The neuration of the apical part of the fore wing may not be quite correctly shown in the figure. The specimen being the type, it did not seem wise to the senior author to denude the wing).

106. **Nouanda(?) sadotha** (Schaus). Pl. VI, fig. 7, ♂, *type*.

Wanda sadotha SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 219.

Habitat: Guiana.

Type, male, from French Guiana, in U. S. N. M.

Genus **POCOPASCHIA** Dyar.

Pocopaschia DYAR, Proc. U. S. N. M., XLVII, 1914, p. 324. (Genotype *Jocara noctuina* Schaus, Cf. *infra*).

107. **Pocopaschia noctuina** Schaus. Pl. VII, fig. 32, ♀, *paratype*.

Jocara noctuina SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 668.

Habitat: Sixola, Costa Rica, Panama.

Type and paratypes in Schaus Collection, U. S. N. M.

108. **Pocopaschia accelerans** Dyar. Pl. I, fig. 24, ♂.

Pocopaschia accelerans DYAR, Proc. U. S. N. M., XLVII, 1914, p. 325.

Habitat: Panama, French Guiana, Brazil.

Two males, U. S. N. M., No. 16345. Carn. Mus.: two typical examples of *P. accelerans* from Pied Saut, Oyapok River, French Guiana, and one less typical example, characterized by the prevalently darker color, while the markings are identical. The latter specimen was taken by S. M. Klages on the Rio Purús, Brazil.

109. **Pocopaschia bellangula** Dyar. Pl. VI, fig. 10, ♂, *paratype*.

Pocopaschia bellangula DYAR, Proc. U. S. N. M., XLVII, 1914, p. 325.

Habitat: Panama.

Type, male, in the U. S. N. M.

Genus **CALYBITIA** Schaus.

Calybitia SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 220. (Genotype *C. picata* Schaus, l. c.)

110. **Calybitia picata** Schaus. Pl. I, fig. 30, ♂, *paratype*.

Calybitia picata SCHAUS, l. c.

Habitat: Guatemala.

Type, male, in U. S. N. M. Carn. Mus.: two examples from Guatemala (Schaus and Barnes coll.).

Genus POCOCERA Zeller.

Pococera ZELLER, Isis, XI, 1848, p. 874. (Genotype *P. gibbella* Zeller, *l. c.*)

111. *Pococera atramentalis* Lederer. Pl. I, fig. 6, ♂.

Pococera atramentalis LEDERER, Wien, Ent. Monatschr., VII, 1863, p. 347, pl. 7, fig. 14.

Phidotricha erigens RAGONOT, Ann. Soc. Ent. France, (6) VIII, 1888, Séance Sept. 12, 1888, p. cxxxix.

Habitat: Central and South America.

Originally described by Lederer from Venezuela. The types of *P. erigens* in Ragonot's Collection from Colombia and Peru; Carn. Mus.: numerous specimens from Costa Rica, Guatemala, and Bolivia. One from Rio de Janeiro in Holland Collection taken by H. H. Smith.

112. *Pococera insularella* (Ragonot). Pl. VI, fig. 5, ♀.

Tetralopha insularella RAGONOT, Ann. Soc. Ent. France, (6) VIII, 1888, Séance Sept. 12, 1888, p. cxxxviii.

Habitat: Porto Rico, Cuba.

Type from Porto Rico in Ragonot's Collection. Represented in the U. S. N. M. by specimens from Porto Rico and Cuba. The specimen we figure is from the latter island.

113. *Pococera limalis* Schaus. Pl. VI, fig. 4, ♀, *paratype*.

Pococera limalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 221.

Habitat: Peru.

Type, female, in Cornell University Mus., from Lima, Peru. Paratype in U. S. N. M. (Forbes *coll.*).

114. *Pococera gibbella* Zeller.

Pococera gibbella ZELLER, Isis, XI, 1848, p. 874.—HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 458.

Habitat: Brazil (Zeller).

So far as is known, this species, the genotype, is not represented in any collection in the United States, nor does Hampson (*l. c.*) indicate that the type at the time he wrote was in the British Museum.

115. *Pococera subviolascens* Hampson.

Pococera subviolascens HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 128.

Habitat: Argentina, Gran Chaco.

Type, female, in Brit. Mus. (Wagner coll.).

116. *Pococera seminigralis* Hampson.

Pococera seminigralis HAMPSON, Ann. Mag. Nat. Hist., (8) XVIII, 1916, p. 128.

Habitat: Peru.

Type, male, in Brit. Mus. Thus far not recognized in any material in the United States.

117. *Pococera nepomuca* Schaus. Pl. I, fig. 4, ♂, type.

Pococera nepomuca SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 16.

Habitat: Bolivia.

Type, male, and five paratypes in Carn. Mus. Paratypes in U. S. N. M. (Steinbach coll.).

118. *Pococera albulella* Hampson.

Pococera albulella HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 458.

Habitat: Brazil.

Type, female, in Brit. Mus.

119. *Pococera strigidiscalis* Hampson. Pl. I, fig. 8, ♂.

Pococera strigidiscalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 126.

Habitat: French Guiana, Brazil.

Type, female, in Brit. Mus. Carn. Mus.: twenty-three examples of both sexes from French Guiana, eleven from the Rio Purús, Brazil (S. M. Klages coll.). A series has been presented to the U. S. N. M.

120. *Pococera fuscifusalis* Hampson.

Pococera fuscifusalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 128.

Habitat: French Guiana.

Type, female, in Brit. Mus.

121. **Pococera vedastella** Schaus. Pl. VI, fig. 11, ♂, *paratype*.

Pococera vedastella SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 221.

Habitat: Cuba.

Type, male, in U. S. N. M.

122. **Pococera baradata** Schaus. Pl. VI, fig. 12, ♂, *type*.

Pococera baradata SCHAUS, *ibidem*, p. 222.

Habitat: Trinidad.

Type, male, in U. S. N. M. (Busck *coll.*).

123. **Pococera brunnapex** Kaye.

Pococera brunnapex KAYE, Proc. Zool. Soc. Lond., 1922, p. 996, pl. I, fig. 1.

Habitat: Trinidad.

Type, (sex ?) in Collection of Sir Norman Lamont.

124. **Pococera lamonti** Schaus. Pl. I, fig. 7, ♂.

Pococera lamonti SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 222.

Habitat: Guatemala to Bolivia.

Type, male, in U. S. N. M. from Guatemala (Schaus *coll.*). Carn. Mus.: Bolivia, twelve specimens (Steinbach *coll.*); Mana River, French Guiana, three (S. M. Klages *coll.*); Rio de Janeiro, one (H. H. Smith *coll.*) in Holland Collection.

125. **Pococera fabianalis** Schaus. Pl. I, fig. 16, ♀.

Pococera fabianalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 223.

Habitat: French Guiana.

Type, male, in U. S. N. M. Carn. Mus.: ten specimens (S. M. Klages *coll.*).

126. **Pococera(?) flavomarginata** (Druce).

Stericta flavomarginata DRUCE, Ann. Mag. Nat. Hist. (7) IX, 1902, p. 325.

Habitat: British Guiana.

Type in Collection Herbert Druce, now in the hands of Mr. A. J. T. Janse. We have failed to recognize the species in any of the material before us.

127. **Pococera capnodon** Dyar. Pl. IV, fig. 32, ♂.

Pococera capnodon DYAR, Proc. U. S. N. M., XLVII, 1916, p. 323.

Habitat: Central America.

Types, male and female, in U. S. N. M., from Panama. One specimen in Carn. Mus. from Guatemala, (Schaus and Barnes coll.) which is figured on plate.

128. **Pococera narthusa** Schaus. Pl. VI, fig. 3, ♀, type.

Pococera narthusa SCHAU, Ann. Mag. Nat. Hist. (8) XI, 1913, p. 253.

Habitat: Costa Rica.

Type, female, in Schaus Collection, U. S. N. M.

129. **Pococera(?) viridis** (Druce).

Macalla viridis DRUCE, Ann. Mag. Nat. Hist. (8) VI, 1910, p. 182.

Habitat: Peru.

Type in Collection Herbert Druce. The species is placed under *Pococera* in the British Museum. Thus far not detected in any collection in the United States.

Genus **LEPIDOGMA** Meyrick.

Lepidogma MEYRICK, Trans. Ent. Soc. Lond., 1890, p. 472.—HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 459.

Asopina CHRISTOPH, Stett. Ent. Zeit., 1894, p. 36.

(Genotype *Hypotia tamaricalis* Mann., Verh. Zoöl.-Bot. Ges. Wien, XXIII, 1873, p. 124. *Hab.* Italy, Spain, Morocco.)

130. **Lepidogma modana** Schaus. Pl. VI, fig. 13, ♀, type.

Lepidogma modana SCHAU, Proc. Ent. Soc. Wash., XXIV, 1922, p. 223.

Habitat: Guatemala.

Type, female, in U. S. N. M.

131. **Lepidogma violescens** Dyar.

Lepidogma violescens DYAR, Proc. U. S. N. M., XLVII, 1914, p. 323.

Habitat: Panama.

Type, female, in U. S. N. M. (Busck coll.).

Genus AJACANIA Schaus:

Ajacania SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 14.

(Genotype *A. steinbachalis* Schaus, l. c.)

132. *Ajacania steinbachalis* Schaus. Pl. II, fig. 22, ♂, *type*.

Ajacania steinbachalis SCHAUS, l. c.

Habitat: Bolivia.

Type, male, in Carn. Mus. (Steinbach *coll.*).

Genus AJOCARA Schaus.

Ajocara SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 15.

133. *Ajocara amazona* Schaus. Pl. II, fig. 25, ♂, *paratype*.

Ajocara amazona SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 15.

Habitat: Brazil.

Type, male, in U. S. N. M.; paratypes in Carn. Mus. (S. M. Klages *coll.*); paratype in Collection Dognin.

134. *Ajocara phileasalis* Schaus. Pl. II, fig. 24, ♂, *type*.

Ajocara phileasalis SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 15.

Habitat: Brazil.

Type, male, in Carn. Mus.; paratype in U. S. N. M. (S. M. Klages *coll.*).

135. *Ajocara œdiperalis* (Hampson).

Jocara œdiperalis HAMPSON, Ann. Mag. Nat. Hist. (7), XVII, p. 133.

Habitat: Panama.

Type, male, in Brit. Mus. Represented in the U. S. N. M.

Genus JOCARA Walker.

Jocara WALKER, Cat. Lep. Het. B. M., XXVII, 1863, p. 115.—HAMPSON, Trans.

Ent. Soc. Lond., 1896, p. 460.

Deuterollyta LEDERER, Wien, Ent. Monatschr., VII, 1863, p. 358.

Toripalpus GROTE, Proc. Boston Soc. Nat. Hist., XIX, 1877, p. 265.

Titanoceras MEYRICK, Trans. Ent. Soc. Lond., 1881, p. 62.

Winona HULST, Entom. Amer., V, 1889, p. 62.

Tetralopha (*auctorum*) *partim*.

(Genotype *J. fragilis* Walker, l. c.)

136. *Jocara incrustalis* (Hulst). Pl. V, fig. 15, ♀.

Toripalpus incrustalis HULST, Entom. Amer., III, 1887, p. 130.

Stericta incrustalis HULST, *ibidem*, V, p. 62.

Jocara incrustalis HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1903, p. 414.—GROSSBECK, Insects of Florida, Bull. A. M. N. H., XXXVII, 1917, p. 127.—BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., II, 1914, p. 217; Check-list, 1917, p. 142.

Habitat: Gulf States.

Type, female, in Hulst Collection, Rutgers College. A series in the U. S. N. M. A small series in the Carn. Mus. from Stemper, Fla, one of the females of which is shown in fig. 15 on our plate. Text-figure 10 represents a male in the U. S. N. M., bred from larva and a female. The two sexes agree in the location and trend of the spots and lines on the wings. This female (text-fig. 11) has been compared with Hulst's type, with which it agrees. They differ decidedly from the type of *J. perseella*.



9



10



11

FIG. 9. Type of *J. perseella* Barnes and McDunnough, ♂.

FIG. 10. Male of *J. incrustalis* Hulst, ♂, in U. S. N. M.

FIG. 11. Female of *J. incrustalis* Hulst, agreeing with type.

137. *Jocara perseella* Barnes and McDunnough.

Jocara perseella BARNES and McDUNNOUGH, Cont. N. H. Lep. N. A., II, 1913, p. 180, pl. II, fig. 6; *ibidem*, 1914, p. 217; Check-List, 1917, p. 142. (Cf. Dyar, Insec. Insc. Menst., I, 1913, p. 105, who regards *J. perseella* as a synonym of *J. incrustalis* Hulst.)—GROSSBECK, Insects of Florida, Bull. A. M. N. H., XXXVII, 1917, p. 127.

Habitat: Florida.

Type, a unique male in the collection of Dr. William Barnes, through whose kindness we are permitted to here reproduce a photograph of it (text-figure 9). Mr. F. H. Benjamin has sent us a female

which he thinks may be conspecific with *J. perseella*. It closely agrees, however, with the type of *J. incrustalis*. It appears that *J. perseella* is a valid species, represented thus far by the unique type in the collection of Dr. Barnes, and we are compelled to differ from Dr. Dyar, who has suggested that *J. perseella* may be a synonym of *J. incrustalis*.

138. *Jocara breviornatalis* (Grote). Pl. V, fig. 19, ♀.

Toripalpus breviornatalis GROTE, Proc. Bost. Soc. Nat. Hist., XIX, 1877, p. 265;

Geol. Surv. Terr. Bull. IV, 1878, p. 688; No. Am. Ent. I, 1879, p. 10, pl. 2, fig. 4.

Stericta breviornatalis HULST, Entom. Amer., V, 1889, p. 63.

Jocara breviornatalis HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 461, fig.—

HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 414.—BARNES and McDUNNOUGH, Check-List, 1917, p. 142.

Habitat: Southern United States.

Grote's type is in the Brit. Mus. Represented in the U. S. N. M.

139. *Jocara trabalis* (Grote). Pl. V, fig. 14, ♂.

Toripalpus trabalis GROTE, Papilio, I, 1881, p. 18.

Stericta trabalis HULST, Entom. Amer., V, 1889, p. 63.

Toripalpus trabalis RAGONOT, Mon. Phyc., 1893, pl. 3, fig. 23, venation only.

Yuma trabalis HULST, in Dyar's List Lep. N. A., p. 415.—HOLLAND, Moth Book, 1903, p. 407, pl. XLVIII, fig. 14, ♀.

Jocara trabalis BARNES and McDUNNOUGH, Check-List, 1917, p. 142.

Habitat: Southwestern United States.

Grote's type is in the Brit. Mus. Carn. Mus., Holland Collection, numerous examples from Arizona. A series in the U. S. N. M.

140. *Jocara interruptella* (Ragonot). Pl. V, fig. 24, ♂.

Epipaschia interruptella RAGONOT, Ann. Soc. Ent. France, (6) VIII, 1888, Séance

Oct. 10, 1888, p. cl.—HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII,

1902, p. 414.—GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 127.

Jocara dentilineella HULST, Journ. N. Y., Ent. Soc., VIII, 1900, p. 221.

Jocara interruptella BARNES and McDUNNOUGH, Cont. Nat. Hist. Lep. N. A., III, 1916, p. 191, Pl. XIV, fig. 15; Check-list, 1917, p. 142.

Habitat: Southwestern United States.

Type of *E. interruptella* formerly in Ragonot's Collection is said to be lost (Cf. Barnes and McDunnough, Cont. Nat. Hist. Lep. N. A., III, 1916, p. 192); the type of *dentilineella* is in Hulst's Collection, Rutgers College. We figure a specimen in the U. S. N. M., which

agrees with others sent to us by Messrs. Barnes and McDunnough, which in turn agree with Hulst's type of *dentilineella*, a sketch of which, made by the senior author, is here given.



Fig. 12. Sketch of type of *J. dentilineella* Hulst.
(One-fourth larger than natural size.)

141. *Jocara argentilinea* (Druce). Pl. II, fig. 12, ♂.

Macalla argentilinea DRUCE, Ann. Mag. Nat. Hist. (8), VI, 1910, p. 181.

Incarcha aporalis DYAR, Zoologica, New York, I, 1920, p. 136, fig. 42, no. 20.

Habitat: Central America to Bolivia.

Type of *M. argentilinea* in Collection Herbert Druce. Type of *I. aporalis* in U. S. N. M. Carn. Mus.: numerous examples ranging from Guatemala (Schaus coll.) to Ecuador, (Parish coll.) French Guiana, Brazil (Klages coll.) Bolivia (Steinbach coll.). U. S. N. M.

142. *Jocara ragonoti* (Möeschler). Pl. IV, fig. 24, ♂.

Deuterollyta ragonoti MÖESCHLER, Abh. Senck. Nat. Ges., 1890, p. 280.

Habitat: West Indies.

Type in Möeschler's Collection, National Museum of Zoölogy, Berlin (?). Carn. Mus.: one example from Cuba (Schaus and Barnes coll.). A small series in U. S. N. M.

143. *Jocara ansberti* Schaus. Pl. VI, fig. 16, ♂, type.

Jocara ansberti SCHAU, Proc. Ent. Soc. Wash., XXIV, 1922, p. 224.

Habitat: French Guiana.

Type, male, in U. S. N. M.

144. *Jocara elegans* (Schaus). Pl. II, fig. 27, ♀.

Pococera elegans SCHAU, Ann. Mag. Nat. Hist. (8), IX, 1912, p. 658.

Jocara elegans BARNES and BENJAMIN, Cont. Nat. Hist. Lep. N. A., V, 1924, p. 194.

Habitat: Texas, Central America, French Guiana, Brazil.

Type, Schaus Collection in U. S. N. M. Carn. Mus.: one from

Guatemala (Schaus and Barnes *coll.*); one from French Guiana, six from Hyutanahan, Brazil (S. M. Klages *coll.*) and one from Rio de Janeiro, Holland Collection.

145. *Jocara trilinealis* Hampson.

Jocara trilinealis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 131.

Habitat: Bahamas.

Type in Brit. Mus. Not so far detected in any collection in the United States.

146. *Jocara albiferalis* Hampson. Pl. II, fig. 15, ♂.

Jocara albiferalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 130.

Habitat: French Guiana.

Type, male, in Brit. Mus. Carn. Mus.: two males and one female (S. M. Klages *coll.*). Represented in U. S. N. M.

147. *Jocara suiferens* Dyar. Pl. VI, fig. 14, ♂, *type*.

Jocara suiferens DYAR, Proc. U. S. N. M., XLV, 1913, p. 649.

Habitat: Valley of Pampaconas River, Peru.

Type, male, in U. S. N. M., taken by Yale Peruvian Expedition.

148. *Jocara prudentia* Schaus. Pl. II, fig. 13, ♂, *type*.

Jocara prudentia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 21.

Habitat: French Guiana.

Type, male, in Carn. Mus.; paratype in U. S. N. M. (S. M. Klages *coll.*).

149. *Jocara hemizonalis* Hampson.

Jocara hemizonalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 131.

Habitat: Peru.

Type in British Museum.

150. *Jocara sara* Schaus. Pl. II, fig. 33, ♂, *type*.

Jocara sara SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 21.

Habitat: Bolivia.

Type, male, in Carn. Mus., also thirty paratypes; paratypes in U. S. N. M.; all collected by José Steinbach.

150a. **Jocara yva** Schaus. Pl. II, fig. 32, ♀, *type*.

Jocara yva Schaus, Ann. Carn. Mus., XVI, 1925, p. 22.

Habitat: Bolivia.

Type, female, Carnegie Museum.

151. **Jocara lactiferalis** Hampson.

Jocara lactiferalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 131.

Habitat: Colombia.

Type in Brit. Mus. Thus far not recognized in any collection in the United States.

152. **Jocara thilloa** Schaus. Pl. VI, fig. 15, ♂, *type*.

Jocara thilloa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 224.

Habitat: Guatemala.

Type, male, in U. S. N. M.

153. **Jocara oduvalda** Schaus. Pl. II, fig. 26, ♂, *type*.

Jocara oduvalda SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 17.

Habitat: French Guiana.

Type, male, and paratypes in Carn. Mus.; paratypes presented to U. S. N. M.; all collected by S. M. Klages.

154. **Jocara thermochroalis** Hampson.

Jocara thermochroalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 131.

Habitat: Colombia.

Type, male, in Brit. Mus. Not identified in any material which we have examined.

155. **Jocara rufiapicalis** Hampson.

Jocara rufiapicalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 132.

Habitat: Colombia.

Type, female, in British Museum.

156. **Jocara albimedialis** Hampson. Pl. VI, fig. 18, ♂.

Jocara albimedialis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 132.

Habitat: Peru.

Type, male, in the Brit. Mus. Represented in the U. S. N. M.

157. *Jocara medusa* (Druce). Pl. VI, fig. 17, ♂.

Stericta medusa DRUCE, Ann. Mag. Nat. Hist. (7) IX, 1902, p. 326.

Habitat: Colombia, Peru.

Type, male, in Collection Herbert Druce. Represented in U. S. N. M. by a specimen in the Schaus Collection from southeastern Peru, which we figure.

158. *Jocara claudalis* (Moeschler). Pl. II, fig. 19, ♂.

Hemimatia claudalis MÖESCHLER, Abh. Senck. Nat. Ges., XIV, 1866, p. 75.

Pococera claudalis HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 459.

Habitat: West Indies, South America.

Type, in Moeschler Collection, National Museum of Zoölogy, Berlin. Carn. Mus.: French Guiana, one male; Rio Purús, Brazil, four (S. M. Klages coll.); Bolivia, three females (Steinbach coll.); Chapada, Brazil, one (H. H. Smith coll.) the latter in the Holland Collection.

159. *Jocara martinia* Schaus. Pl. II, fig. 10, ♂.

Jocara martinia SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 225.

Habitat: Guatemala to French Guiana.

Type, female, from Guatemala, in U. S. N. M. Carn. Mus.: one, Mana River, French Guiana (S. M. Klages coll.).

160. *Jocara mava* Schaus. Pl. II, fig. 29, ♀, type.

Jocara mava SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 17.

Habitat: Bolivia.

Type, female, in Carn. Mus., Rio Japacani, Bolivia (Steinbach coll.).

161. *Jocara theodota* Schaus. Pl. II, fig. 7, ♀, type.

Jocara theodota SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 18.

Habitat: Brazil.

Type, female, in Carn. Mus., from Hyutanahan, Brazil (S. M. Klages coll.).

162. *Jocara parallelalis* Hampson.

Jocara parallelalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 133.

Habitat: Peru.

Type, female, in Brit. Mus.

163. *Jocara chlorisalis* Schaus. Pl. II, fig. 9, ♂.

Jocara chlorisalis SCHAUS, Ann. Mag. Nat. Hist., (8) IX, 1912, p. 661.

Habitat: Costa Rica.

The types, male and female, in Schaus Collection, U. S. N. M. Carn. Mus., three, Costa Rica (Schaus coll.).

164. *Jocara ferrifusalis* Hampson. Pl. II, fig. 14, ♀.

Jocara ferrifusalis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 132.

Jocara obscuralis SCHAUS, Ann. Mag. Nat. Hist. (8), IX, 1912, p. 663.

Habitat: Jamaica, Central America to Paraguay.

Type, female, of *J. ferrifusalis* Hampson, from Jamaica, male from Paraguay in Brit. Mus.; type, female, of *J. obscuralis* Schaus, from Costa Rica, in Schaus Collection, U. S. N. M. Carn. Mus.: two from Costa Rica (Schaus coll.); one from Guatemala (Schaus and Barnes coll.); four from French Guiana (S. M. Klages coll.); nine from Bolivia (Steinbach coll.).

165. *Jocara subcurvalis* Schaus. Pl. II, fig. 37, ♂.

Jocara subcurvalis SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 663.

Habitat: Mexico, Guatemala.

Type, male and female, from Guatemala in Schaus Collection, U. S. N. M. Carn. Mus.: two, Guatemala (Schaus and Barnes coll.).

166. *Jocara cantianilla* Schaus. Pl. II, fig. 21, ♂, *type*.

Jocara cantianilla SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 20.

Habitat: Brazil.

Type, male, and paratypes in Carn. Mus. from Rio Purús, Brazil; paratypes in U. S. N. M.

167. *Jocara anastasia* Schaus. Pl. VI, fig. 21, ♀, *paratype*.

Jocara anastasia SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 225.

Habitat: Guatemala.

Type, female, in U. S. N. M.

168. *Jocara translinea* Schaus. Pl. II, fig. 23, ♂.

Jocara translinea SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 666.

Habitat: Costa Rica, French Guiana, Brazil, Bolivia.

Type, female, from Costa Rica, in Schaus Collection, U. S. N. M.; Brit. Mus.: one male, from French Guiana; Carn. Mus.: one female from Hyutanahan, Brazil (Klages *coll.*); three males from Bolivia (Steinbach *coll.*).

169. *Jocara desideria* Schaus. Pl. II, fig. 16, ♂, *type*.

Jocara desideria SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 18.

Habitat: French Guiana.

Type, male, in Carn. Mus. (Klages *coll.*). Paratypes communicated to the U. S. N. M.

170. *Jocara abachuma* Schaus. Pl. VI, fig. 22, ♂, *type*.

Jocara abachuma SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 226.

Habitat: Castro, Paraná, Brazil.

Type, male, in U. S. N. M.

171. *Jocara conrana* Schaus. Pl. VI, fig. 23, ♂, *type*.

Jocara conrana SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 226.

Habitat: Peru.

Type, male, in U. S. N. M.

172. *Jocara luciana* Schaus. Pl. VI, fig. 24, ♀, *type*.

Jocara luciana SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 227.

Habitat: Guatemala.

Type, female, in U. S. N. M.

173. *Jocara aidana* Schaus. Pl. VI, fig. 25, ♀, *type*.

Jocara aidana SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 227.

Habitat: Castro, Paraná, southern Brazil.

Type, female, in U. S. N. M.

174. *Jocara theliana* Schaus. Pl. VI, fig. 19, ♂, *type*.

Jocara theliana SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 228.

Habitat: Guatemala.

Type, male, in U. S. N. M.

175. *Jocara amazonalis* Schaus. Pl. II, fig. 46, ♂, *paratype*.

Jocara amazonalis SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 26.

Habitat: Brazil.

Type, male, from São Paulo de Olivença, Amazons, in U. S. N. M.; five paratypes from Hyutanahan, Brazil, in the Carn. Mus.

176. *Jocara hospitia* Schaus. Pl. II, fig. 28, ♂, *type*.

Jocara hospitia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 20.

Habitat: Brazil.

Type, male, from Arima, Rio Purús, Brazil, in Carn. Mus., also three paratypes from Hyutanahan, Brazil (S. M. Klages *coll.*). Paratypes in U. S. N. M.

177. *Jocara pictalis* Hampson. Pl. II, fig. 17, ♂.

Jocara pictalis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 132.

Habitat: Brazil, Bolivia.

Type, female, from São Paulo, Brazil, in Brit. Mus. Carn. Mus.: Chapada, Brazil, one (H. H. Smith *coll.*) in Holland Collection; eleven from Bolivia (Steinbach *coll.*). Represented in U. S. N. M.

178. *Jocara zetila* (Druce). Pl. VI, fig. 20, ♂.

Stericta zetila DRUCE, Ann. Mag. Nat. Hist. (7) IX, 1902, p. 326.

Habitat: Costa Rica, Colombia.

Type, male, in Collection Herbert Druce, from Colombia. Represented in U. S. N. M. by specimens from Costa Rica.

179. *Jocara multicolor* (Dognin). Pl. VI, fig. 26, ♂.

Stericta multicolor DOGNIN, Ann. Soc. Ent. Belg., XLVIII, 1904, p. 124.

Habitat: Southeastern Peru.

Type in Collection Dognin. Represented in the U. S. N. M. by a specimen which has been compared and agrees with the type, which specimen we have figured.

180. *Jocara conspiciualis* (Lederer).

Deuterollyta conspiciualis LEDERER, Wien. Ent. Monatschr., VII, 1863, p. 137, pl. V, fig. 16, ♂; 17, ♀. (Type of genus *Deuterollyta*.)

Habitat: Brazil.

Only known to us by the description and figures given by Lederer.

181. *Jocara extensa* (Walker). Pl. II, fig. 31, ♂.

Nephopteryx extensa WALKER, Cat. Lep. Het. B. M., XXVII, 1863, p. 61.

Stericta extensa HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 472.

Homura granitalis FELDER and ROGENHOFER, Novara Reise, Lep., pl. CXXXVI, fig. 15.

Deuterollyta variegata WARREN, Ann. Mag. Nat. Hist. (6) VII, 1891, p. 433.

Habitat: Guiana to Bolivia.

Carn. Mus.: one, Province del Sara, Bolivia (Steinbach coll.).
U. S. N. M., several.

182. *Jocara nigrisquama* (Dognin).

Stericta nigrisquama DOGNIN, Ann. Soc. Ent. Belg., XLVIII, 1904, p. 124.

Habitat: Tucuman, Argentina.

Type, male, in Collection Dognin. Not thus far recognized in any of the material studied by us.

183. *Jocara albulatalis* (Dognin).

Macalla albulatalis DOGNIN, Ann. Soc. Ent. Belg., XLVIII, 1904, p. 123.

Habitat: Colombia.

Type, female, in Collection Dognin. Not known to us in nature, and here placed provisionally.

184. *Jocara fragilis* Walker.

Jocara fragilis WALKER, Cat. Lep. Het. B. M., XXVII, 1863, p. 115.—HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 461.

Habitat: Santo Domingo.

Type, female, in Brit. Mus. This specimen is the type of the genus *Jocara*. Not represented in either the U. S. N. M. or the Carn. Mus.

185. **Jocara noloides** Hampson.

Jocara noloides HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 133.

Habitat: Bahamas.

Type, female, in Brit. Mus.

186. **Jocara nana** Schaus. Pl. VI, fig. 27, ♂, *type*.

Jocara nana SCHAU, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 661.

Habitat: Costa Rica.

Type, male, in Schaus Collection, U. S. N. M.

187. **Jocara anacita** Schaus. Pl. II, fig. 36, ♂, *type*.

Jocara anacita SCHAU, Ann. Carn. Mus., XVI, 1925, p. 25.

Habitat: French Guiana.

Type, male, in Carn. Mus., from Mana River, French Guiana (Klages coll.).

188. **Jocara monosemia** (Zeller).

Myelois monosemia ZELLER, Horæ Soc. Ent. Ross., XVI, 1881, p. 203, pl. XI, fig. 23.

Jocara monosemia HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 461.

Habitat: Colombia.

Type, female, in British Museum.

189. **Jocara rubralis** Hampson. Pl. VI, fig. 28, ♀.

Jocara rubralis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 134.

Habitat: Colombia.

Type, male, in British Museum. U. S. N. M. one specimen, which we figure, is referred to this species, with the description of which it seems to agree.

190. **Jocara agathoa** Schaus. Pl. II, fig. 30, ♂.

Jocara agathoa SCHAU, Proc. Ent. Soc. Wash., XXIV, 1922, p. 228.

Habitat: French Guiana.

Type, male, in U. S. N. M. Carn. Mus.: one male, Oyapok River, French Guiana (Klages coll.).

191. **Jocara subfusca** Schaus. Pl. VI, fig. 29, ♂, *paratype*.

Jocara subfusca SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 664.

Habitat: Costa Rica.

Type, female, from Sixola, Costa Rica, in Schaus Collection, U. S. N. M.

192. **Jocara andeola** Schaus. Pl. II, fig. 1, ♀, *type*.

Jocara andeola SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 25.

Habitat: Brazil.

Type, female, in Carn. Mus., from Hyutanahan, Brazil (S. M. Klages coll.).

193. **Jocara discalis** Hampson. Pl. II, fig. 18, ♂.

Jocara discalis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, p. 133.

Habitat: French Guiana, Brazil.

Type, male, in Brit. Mus.; allotype, female, in Schaus Collection, U. S. N. M. Carn. Mus.: four from French Guiana, two from Rio Purús, Brazil (Klages coll.).

194. **Jocara longistriga** Schaus. Pl. IV, fig. 27, ♂, *paratype*.

Jocara longistriga SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 229.

Habitat: Guatemala.

Type, male, in U. S. N. M. Carn. Mus.: paratype (Schaus and Barnes coll.).

195. **Jocara majuscula** (Herrich-Schæffer). Pl. IV, fig. 2, ♂.

Deuterollyta majuscula H.-S., Corr.-Blatt. Regensb., XXV, 1871, p. 17.

Deuterollyta infectalis MÆSCHLER, Abh. Senck. Nat. Ges., 1890, p. 279.

Habitat: Porto Rico, Cuba.

Type in National Museum of Zoölogy, Berlin. Specimens from Cuba in U. S. N. M. Carn. Mus.: one, from Cuba (Schaus and Barnes coll.) which we figure.

196. **Jocara maroa** Schaus. Pl. VI, fig. 30, ♂, *type*.

Jocara maroa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 230.

Habitat: Cuba.

Type, male, in U. S. N. M.

197. **Jocara marchiana** Schaus. Pl. II, fig. 39, ♀.

Jocara marchiana SCHAU, Proc. Ent. Soc. Wash., XXIV, 1922, p. 230.

Habitat: Guatemala, Bolivia.

Type, female, from Guatemala, in U. S. N. M. Carn. Mus.: three females from Province del Sara, Bolivia (Steinbach coll.).

198. **Jocara nigripuncta** Schaus. Pl. II, fig. 6, ♂.

Jocara nigripuncta SCHAU, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 662.

Habitat: Costa Rica, Guiana, Brazil.

Type, male, Costa Rica, in Schaus Collection, U. S. N. M. Carn. Mus.: one from French Guiana, and one from Hyutanahan, Brazil, collected by S. M. Klages.

199. **Jocara tenebrosa** Schaus. Pl. II, fig. 4, ♂.

Jocara tenebrosa SCHAU, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 664.

Habitat: Costa Rica, French Guiana, Brazil.

Type, male, from Costa Rica, in Schaus Collection, U. S. N. M. Carn. Mus.: one from French Guiana; two from Hyutanahan, Brazil (S. M. Klages coll.).

200. **Jocara dapha** (Druce).

Macalla dapha DRUCE, Biol. Cent.-Amer., Lep. Het., II, 1895, p. 198, pl. 60, fig. 3.

Stericta nigripunctata DRUCE, Ann. Mag. Nat. Hist. (7) IX, 1902, p. 327.

Habitat: Panama, Colombia.

Types in Godman Collection, Brit. Mus., and Collection of Herbert Druce.

201. **Jocara raymonda** Schaus. Pl. VI, fig. 31, ♀, type.

Jocara raymonda SCHAU, Proc. Ent. Soc. Wash., XXIV, 1922, p. 229.

Habitat: French Guiana.

Type, female, in U. S. N. M.

202. **Jocara pagiroa** Schaus. Pl. VI, fig. 32, ♂, type.

Deuterollyta pagiroa SCHAU, Proc. U. S. N. M., XXX, 1906, p. 141.

Habitat: Panama, Brazil.

Type in U. S. N. M.

203. *Jocara cononalis* Schaus. Pl. II, fig. 43, ♂.

Jocara cononalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 231.

Habitat: Guatemala, Guiana, Bolivia.

Type, male, from Guatemala, in U. S. N. M. Carn. Mus.: one from French Guiana (Klages *coll.*); three from Bolivia (Steinbach *coll.*).

204. *Jocara vimina* Schaus. Pl. VII, fig. 23, ♂, *type*.

Jocara vimina SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 231.

Habitat: Guatemala.

Type, male, in U. S. N. M.

205. *Jocara cacalis* (Felder and Rogenhofer).

Hemimattia cacalis FELDER and ROGENHOFER, Novara Reise, pl. CXXXVI, fig. 15.
(*Fide* Hampson = *J. extensa* Walker, *sed non?*)

Habitat: French Guiana.

Type in Felder Collection in Tring Museum. U. S. N. M. The specimens of *J. extensa*, which are in the U. S. N. M., some of which have been compared with specimens so labelled in the British Museum, do not agree with the figure given in Felder's work.

206. *Jocara sisinnia* Schaus. Pl. II, fig. 20, ♂, *type*.

Jocara sisinnia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 19.

Habitat: Brazil.

Type, male, in Carn. Mus. from Hyutanahan, Brazil (Klages *coll.*).

207. *Jocara ban* Dyar. Pl. IV, fig. 30, ♀.

Jocara ban DYAR, Proc. U. S. N. M., LI, 1916, p. 37.

Habitat: Mexico, Guatemala.

Type, female, in U. S. N. M. Carn. Mus.: one example from Guatemala (Schaus and Barnes *coll.*).

208. *Jocara athanasia* Schaus. Pl. II, fig. 8, ♀, *type*.

Jocara athanasia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 24.

Habitat: Bolivia.

Type, female, in Carn. Mus. (Steinbach *coll.*).

209. **Jocara gillalis** Schaus. Pl. II, fig. 38, ♂, *type*.

Jocara gillalis SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 23.

Habitat: Bolivia.

Type, male, in Carn. Mus. (Steinbach *coll.*).

210. **Jocara maurontia** Schaus. Pl. II, fig. 42, ♂, *type*.

Jocara maurontia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 23.

Habitat: Bolivia.

Type, male, in Carn. Mus. (Steinbach *coll.*).

211. **Jocara acheola** Schaus. Pl. II, fig. 34, ♀, *type*.

Jocara acheola SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 24.

Habitat: Bolivia.

Type, female, in Carn. Mus. (Steinbach *coll.*).

212. **Jocara terrenalis** Schaus. Pl. VI, fig. 33, ♀, *type*.

Jocara terrenalis SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 665.

Habitat: Costa Rica.

Type, female, in Schaus Collection, U. S. N. M.

213. **Jocara basilata** (Schaus). Pl. VII, fig. 10, ♀, *type*.

Isolopha basilata SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 670.

Habitat: Costa Rica.

Type, female, in Schaus Collection, U. S. N. M.

214. **Jocara mira** (Druce). Pl. VII, fig. 20, ♀.

Macalla mira DRUCE, Ann. Mag. Nat. Hist. (7) IX, 1902, p. 324.

Oxyalois ovifera DOGNIN, Ann. Soc. Ent. Belg., XLIX, 1905, p. 65.

(Cf. Schaus, Proc. Ent. Soc. Wash., XXIV, 1922, p. 224.)

Habitat: Ecuador.

Type, male, in Collection Herbert Druce. A female specimen in the U. S. N. M., which we figure.

215. **Jocara crinitalis** Schaus. Pl. VII, fig. 13, ♀, *type*.

Jocara crinitalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 232.

Habitat: Guatemalá.

Type, female, in U. S. N. M.

Genus ARÆOPASCHIA Hampson.

Aræopaschia HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 134. (Genotype *A. grisealis* Hampson, *l. c.*)

216. *Aræopaschia grisealis* Hampson.

Aræopaschia grisealis HAMPSON, *l. c.*

Habitat: Brazil.

Type, male, in British Museum.

217. *Aræopaschia goanta* (Schaus). Pl. II, fig. 2, ♂; fig. 3, ♀.

Tancoa goanta SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 218.

Habitat: Guatemala, Brazil, Bolivia.

Type, male, in U. S. N. M. The male and female figured on our plate are from Bolivia, collected by José Steinbach. We also possess in the Carnegie Museum a female, collected at Hyutanahan, Brazil, by S. M. Klages, and another female has been communicated to the U. S. N. M.

Dr. Schaus was at first inclined to think that the specimens in the Carnegie Museum represented a new species, but a close comparison with the type of *T. goanta* reveals specific identity, as well as the fact that the species should be transferred to the genus *Aræopaschia* Hampson.

Genus EPIPASCHIA Clemens.

Epipaschia CLEMENS, Proc. Acad. N. S. Phila., XII, 1860, p. 14.—GROTE, Proc. Bost. Soc. Nat. Hist., XIX, 1877, p. 262; Geol. Surv. Terr., Bull. IV, 1878, p. 685; N. Am. Ent., I, 1879, p. 9.—HULST, Entom. Amer., V, 1889, p. 50; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 414. —HAMPSON, Trans. Ent. Soc. Lond., 1896, pp. 463, 465. (Genotype *E. superatalis* Clemens, *l. c.*)

As stated before (*Cf.* p. 49) we do not sink *Epipaschia* Clemens as a synonym of *Macalla* Walker, the type of which is *M. thyrsisalis*. A minute examination of the two insects, which are the types of the two genera, shows, of course, general resemblances, but marked differences. In addition to the differences in the neuration of the wings already pointed out in Footnote 1 (*Cf.* p. 49) the structure of the palpi and of the antennæ is quite unlike. In *Macalla* the labial palpi are robust, deeply hollowed out to receive the maxillary palpi, which are long, with their brush-like extremities extruding near the upper end of the second joint of the labial palpi; in *Epipaschia* the

labial palpi are slender, the maxillary palpi very short, their brush-like extremities extruding near the base of the second joint of the maxillary palpi. In *Macalla thyrsisalis* the appendage of the basal joint of the antenna is large, coriaceous, more or less upright in position, broadly expanded distally, and not very densely scaled; in *Epipaschia superatalis* this appendage is ligulate, narrow, directed strongly backward parallel to the thorax, and densely covered with long scales. (See fig. 13.) These differences in the structure of the oral and antennal parts warrant our maintaining the generic distinctness of the two forms and their congeners.

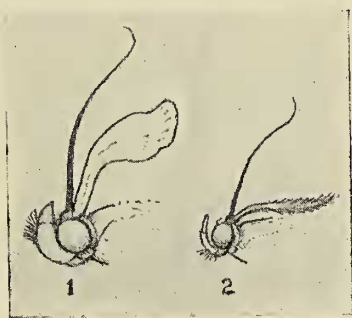


FIG. 13. 1. Lateral view of head of *Macalla thyrsisalis*; 2. lateral view of head of *Epipaschia superatalis*.

218. *Epipaschia superatalis* Clemens. Pl. V, fig. 1, ♂; fig. 2, ♀.

(See also text-figure 13).

Epipaschia superatalis CLEMENS, Proc. Acad. N. S. Phila., XII, 1860, p. 14.—GROTE, Proc. Bost. Soc. Nat. Hist., XIX, 1877, p. 262; Geol. Surv. Terr., Bull. IV, 1878, p. 685.—HULST, Entom. Amer., V, 1889, p. 50; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 414.—HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 465.—BARNES and McDUNNOUGH, Check-list, 1917, p. 142.—GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 127.—FORBES, Lep. N. Y., etc., p. 606.

Deuterollyta borealis GROTE, Bull. Buffalo Soc. Nat. Hist., I, 1870, p. 177.

Tetralopha olivalis HULST, Trans. Am. Ent. Soc., XIII, 1886, p. 160.

Habitat: Widely distributed over the eastern temperate regions of the continent from Ontario southward and westward to the eastern uplift of the Rocky Mountains.

The type of *E. superatalis* is in the Academy of Natural Sciences in Philadelphia; of *D. borealis* Grote in the British Museum; of *T. olivalis* Hulst in Rutgers College. Carn. Mus.: several specimens from western Pennsylvania. U. S. N. M.: a small series. The specimens on our plate were kindly loaned by the A. M. N. H. to be figured, they being better preserved than those in the Carn. Mus.

219. *Epipaschia zelleri* (Grote). Pl. V, fig. 3, ♀.

Mochlocera zelleri GROTE, Can. Ent., VIII, 1876, p. 157; Proc. Bost. Soc. Nat. Hist., XIX, 1877, p. 264; Geol. Surv. Terr., Bull. IV, 1878, p. 686; No. Am. Ent., I, 1879, pl. 2, fig. 2.

Epipaschia zelleri HULST, Entom. Amer., V, 1889, p. 52; in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 414.—GROSSBECK, Ins. of Fla., Bull. A. M. N. H., XXXVII, 1917, p. 127.—BARNES and MCDUNNOUGH, Check-list, 1917, p. 142.—FORBES, Lep. N. Y., etc., 1924, p. 606.

Habitat: Eastern United States to Florida and westward to the Rocky Mountains.

Type, male, in Grote's Collection in the Brit. Mus. Carn. Mus.: Western Pennsylvania, Engel Collection; Texas, several in the Holland Collection. The U. S. N. M. contains a series.

220. *Epipaschia albomedialis* Barnes and Benjamin.

Pl. V, fig. 38, ♂; fig. 39, ♀, *paratypes*.

Epipaschia albomedialis BARNES and BENJAMIN, Cont. Nat. Hist. N. A. Lep., V, 1924, p. 193.

Habitat: Texas.

Type, male, allotype, female, and paratypes in Collection Barnes. We figure a male and female which agree perfectly with the type and allotype.

Genus *MACALLA* Walker.

Macalla WALKER, Cat. Lep. Het. B. M., XVI, 1858, p. 155.

Homura LEDERER, Wien. Ent. Monatschr., VII, 1863, p. 339.

(Genotype *M. thyrsisalis* Walker, *l. c.*)

221. *Macalla thyrsisalis* Walker. Pl. II, fig. 35, ♀.

(See also text-figure 13).

Macalla thyrsisalis WALKER, *l. c.*—HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 465.

Aradrapha mixtalis WALKER, Cat. Lep. Het. B. M., XXXIV, 1865, p. 1257; Hampson, *l. c.*

Habitat: Florida, Honduras, Costa Rica, Guatemala, Brazil.

Types, male and female, in Brit. Mus. Carn. Mus.: male from Guatemala (Schaus and Barnes *coll.*); Costa Rica, three females from the same collectors; Hyutanahan, Brazil, one female (Klages *coll.*). A series in the U. S. N. M.

222. **Macalla phæobasalis** Hampson. Pl. IV, fig. 25, ♂; fig. 26, ♀.

Macalla phæobasalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 144.

Habitat: Cuba.

Type in Brit. Mus. A series in the U. S. N. M. (Schaus and Barnes coll.). The Carnegie Museum possesses a male and a female kindly presented by Dr. Schaus, which specimens we figure.

223. **Macalla sinualis** Jones.

Macalla sinualis JONES, Trans. Ent. Soc. Lond., 1912, p. 443.

Habitat: Paraná, Brazil.

Type, male, in Brit. Mus.(?)

This species has thus far not been recognized in any of the material which is contained in North American collections, which we have examined.

224. **Macalla nebulosa** Schaus. Pl. VII, fig. 7, ♀, *type*.

Macalla nebulosa SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 667.

Habitat: Costa Rica.

Type, female, in U. S. N. M. (Schaus and Barnes coll.).

225. **Macalla euryleuca** Hampson. Pl. II, fig. 40, ♂.

Macalla euryleuca HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 140.

Habitat: Peru, French Guiana, Brazil.

Type, male, in Brit. Mus. from Peru. Carn. Mus.: six from French Guiana, two from Rio Purús, Brazil (Klages coll.); two from Chapada, Brazil, in Holland Collection (H. H. Smith coll.). A series in the U. S. N. M.

226. **Macalla pallidomedia** Dyar. Pl. II, fig. 44, ♂.

Macalla pallidomedia DYAR, Zoologica, New York, I, 4, 1910, p. 136, fig. 42, no. 21.

Habitat: British and French Guiana, Brazil.

Type, female, in U. S. N. M., from Hoorie, British Guiana (C. W. Beebe coll.). Carn. Mus.: eleven from French Guiana, twelve from Rio Purús, Brazil (Klages coll.). Represented in the U. S. N. M. by the type and a male specimen in the Schaus Collection taken at Omai, British Guiana.

227. **Macalla finstanalis** Schaus. Pl. VII, fig. 1, ♂, *type*.

Macalla finstanalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 232.

Habitat: Guatemala.

Type, male, U. S. N. M.

228. **Macalla regalis** Jones.

Macalla regalis JONES, Trans. Ent. Soc. Lond., 1912, p. 443.

Habitat: Brazil.

Type, male, from Paraná, Brazil, in Brit. Mus.(?) Thus far not recognized as being in any North American collection.

229. **Macalla glastianalis** Schaus. Pl. VII, fig. 18, ♂, *type*.

Macalla glastianalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 233.

Habitat: Mexico.

Type, male, in U. S. N. M.

230. **Macalla hyutanahana** Schaus. Pl. III, fig. 1, ♀, *type*.

Macalla hyutanahana SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 27.

Habitat: Brazil.

Type, female, in Carn. Mus. from Hyutanahan, Brazil (Klages *coll.*).

231. **Macalla ochrotalis** Hampson. Pl. IV, fig. 31, ♂ *paratype*.

Macalla ochrotalis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 139.

Habitat: French Guiana.

Type, female, in Brit. Mus. Allotype, male, in Schaus Collection, U. S. N. M. Paratype, male, in Carn. Mus., Schaus *don.*

232. **Macalla niveorufa** Hampson. Pl. II, fig. 5, ♂.

Macalla niveorufa HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 139.

Habitat: Costa Rica, Guatemala, Panama, Guiana, Brazil.

Type, female, from Panama, in Brit. Mus. Carn. Mus.: three from Costa Rica and three from Guatemala (Schaus and Barnes *coll.*); three from Rio Purús, Brazil (Klages *coll.*). A series in the U. S. N. M.

233. **Macalla furseyalis** Schaus. Pl. VII, fig. 15, ♂, *paratype*.

Macalla furseyalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 233.

Habitat: Guatemala.

Type, male, from Guatemala, in U. S. N. M.

234. **Macalla mesoleucalis** (Hampson). Pl. II, fig. 41, ♂.

Pococera mesoleucalis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 129.

Habitat: French Guiana, Brazil.

Type, female, in Brit. Mus. Carn. Mus.: eight from Oyapok River, French Guiana; two from Rio Purús, Brazil (S. M. Klages coll.). Represented in the U. S. N. M.

235. **Macalla marginata** Schaus. Pl. VII, fig. 12, ♀, *type*.

Macalla marginata SCHAU, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 667.

Habitat: Costa Rica.

Type, female, in Schaus Collection, U. S. N. M.

236. **Macalla pegalis** Schaus. Pl. VII, fig. 8, ♀, *paratype*.

Macalla pegalis SCHAU, Proc. Ent. Soc. Wash., XXIV, 1922, p. 234.

Habitat: Guatemala.

Type, male, in U. S. N. M.

237. **Macalla termenipuncta** Schaus. Pl. III, fig. 2, ♀, *type*.

Macalla termenipuncta SCHAU, Ann. Carn. Mus., XVI, 1925, p. 26.

Habitat: Bolivia, Brazil.

Type, female, from Bolivia, in Carn. Mus., also twelve paratypes from same country (Steinbach coll.). Twelve in Holland Collection, from Chapada, Brazil (H. H. Smith coll.). Four paratypes have been presented to U. S. N. M.

238. **Macalla aciusa** Schaus. Pl. II, fig. 45, ♀, *type*.

Macalla aciusa SCHAU, Ann. Carn. Mus., XVI, 1925, p. 28.

Habitat: Brazil, French Guiana.

Type, female, and two males, paratypes, from Arima, Rio Purús, Brazil, in the Carnegie Museum together with two male paratypes from French Guiana. Paratype in U. S. N. M.

239. **Macalla boliviana** Schaus. Pl. III, fig. 3, ♀, *type*.

Macalla boliviana SCHAU, Ann. Carn. Mus., XVI, 1925, p. 28.

Habitat: Bolivia.

Type, female, and paratype in Carn. Mus.; paratype presented to U. S. N. M.

240. **Macalla nocturnalis** (Lederer).

Homura nocturnalis LEDERER, Wien. Ent. Monatschr., VII, 1863, p. 340, pl. 7, fig. 7.

Habitat: Brazil.

Type, male, National Zoölogical Museum, Vienna.

241. **Macalla grisealis** Hampson. Pl. III, fig. 4, ♂.

Macalla grisealis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 140.

Habitat: Guiana.

Type, male, from British Guiana, in Brit. Mus. Carn. Mus.: one male from French Guiana. A series in the U. S. N. M.

242. **Macalla vulstana** Schaus. Pl. VI, fig. 34, ♀, *type*.

Macalla vulstana SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 234.

Habitat: Peru.

Type, female, in U. S. N. M.

243. **Macalla selecta** Schaus. Pl. VII, fig. 6, ♀, *paratype*.

Macalla selecta SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 668.

Habitat: Costa Rica.

Type, female, in Schaus Collection, U. S. N. M.

244. **Macalla admotalis** Dognin.

Macalla admotalis DOGNIN, Ann. Soc. Ent. Belg., XLVIII, 1904, p. 122.

Habitat: Peru.

Type, female, in Dognin Collection.

Genus **PSEUDOMACALLA** Dognin.

Pseudomacalla DOGNIN, Ann. Soc. Ent. Belg., LII, 1908, p. 26. (Genotype *P. noctuipalpis* Dognin, *l. c.*)

245. **Pseudomacalla noctuipalpis** Dognin.

Pseudomacalla noctuipalpis DOGNIN, *l. c.*

Habitat: Tucuman, Argentina.

Type, female, in Collection Dognin. Thus far not recognized in any collection in the United States.

Genus CECIDIPTA Berg.

Cecidipta BERG, Stett. Ent. Zeit., XXXIX, 1878, p. 232.

Cecidiptera DRUCE (*errore*) Ann. Mag. Nat. Hist. (7) IX, 1902, p. 325. (Genotype *C. excæcariæ* Berg, *l. c.*)

246. *Cecidipta excæcariæ* Berg. Pl. III, fig. 5, ♂.

Cecidipta excæcariæ BERG, *l. c.*

Locastra phyalis DRUCE, Biol. Cent.-Amer., Lep. Het. II, 1899, p. 547, pl. 100, fig. 7.

Macalla albescens SCHAUS, Proc. U. S. N. M., XXX, 1916, p. 140.

Habitat: Argentina, Brazil, Bolivia, Central America.

Types, male and female, of *C. excæcariæ* in Collection Berg, Buenos Aires (?); of *L. phyalis* Druce in Godman Collection, Brit. Mus.; of *M. albescens* Schaus in U. S. N. M. Carn. Mus.: male and female from Guatemala (Schaus and Barnes *coll.*). A large series in U. S. N. M.

247. *Cecidipta abnormalis* Dognin.

Cecidipta abnormalis DOGNIN, Ann. Soc. Ent. Belg., XLVIII, 1904, p. 123.

Habitat: Andean foot-hills in Province La Paz, Bolivia.

Type, female, in Collection Dognin.

248. *Cecidipta arctata* Druce.

Cecidiptera (errore) arctata DRUCE, Ann. Mag. Nat. Hist. (7) IX, 1902, p. 325.

Habitat: Peru.

Type, male, in Collection Herbert Druce.

Genus LOCASTRA Walker.

Locastra WALKER, Cat. Lep. Het. B. M., XVI, 1858, p. 158. (Genotype *Eurois? crassipennis* Walker, *ibidem*, XI, 1857, p. 558, from Silhet.)

249. *Locastra trisulcata* (Warren). Pl. III, fig. 8, ♂.

Homura trisulcata WARREN, Ann. Mag. Nat. Hist. (6) VII, 1891, p. 434 (*nec Homura nocturnalis* Lederer, as stated by Hampson, Trans. Ent. Soc. Lond., 1896, p. 470).

Locastra viriditincta SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 668.

Habitat: Brazil, Costa Rica.

Type of *H. trisulcata* Warren from Rio de Janeiro in Brit Mus.; type of *L. viriditincta* Schaus in Schaus Collection, U. S. N. M. Carn. Mus.: two specimens from Costa Rica (Schaus *coll.*).

250. *Locastra erythea* (Druce). Pl. VII, fig. 2, ♀.

Homura erythea DRUCE, Ann. Mag. Nat. Hist. (7) V, 1900, p. 527.

Macalla paranensis SCHAUS, Proc. U. S. N. M., XXX, 1906, p. 140.

Habitat: Colombia, Brazil.

Type, male, of *H. erythea* Druce in Collection Herbert Druce; type of *M. paranensis* Schaus, male, in U. S. N. M. We figure a typical specimen of this species kindly loaned for this purpose by Dr. Schaus.

251. *Locastra funerea* Warren.

Locastra funerea WARREN, Trans. Ent. Soc. Lond., 1889, p. 257.

Habitat: Brazil.

Type, male and female, in Brit. Mus.

252. *Locastra pilosa* Warren.

Locastra pilosa WARREN, Trans. Ent. Soc. Lond., 1889, p. 258.

Habitat: Brazil.

Type, male, in Brit. Mus. So far as we know, not as yet represented in any North American collection.

Genus *CACOZELIA* Grote.

Cacozelia GROTE, Proc. Bost. Soc. Nat. Hist., XIX, 1877, p. 264; Geol. Surv. Terr., Bull. IV, 1878, p. 687; No. Am. Ent., I, 1879, p. 10, pl. II, fig. 3.—HULST, Entom. Amer., V, 1889, p. 61. (Genotype *C. basiochrealis* Grote, *l. c.*)

253. *Cacozelia basiochrealis* Grote. Pl. V, fig. 17, ♀.

Cacozelia basiochrealis GROTE and HULST, *ll. cc.*—HULST, in Dyar's List Lep. N. A., Bull. U. S. N. M., LII, 1902, p. 414; Barnes and McDunnough, Check-list, p. 142.

Habitat: Colorado, Texas, Arizona, Mexico.

Type, male, in British Museum. Carn. Mus.: from Texas, Engel Collection, and a good series of both sexes from Arizona (Poling *coll.*). A good series in U. S. N. M., including specimens from Mexico.

254. *Cacozelia alboplagialis* Dyar. Pl. V, fig. 27, ♂, *paratype*.

Cacozelia alboplagialis DYAR, Proc. Ent. Soc. Wash., VII, 1905, p. 30.

Habitat: Huachuca Mts., Arizona.

Type, male, in U. S. N. M. This species seems to be doubtfully congeneric with *C. basiochrealis* Grote, the genotype.

Genus CHLOROPASCHIA Hampson.

Chloropaschia HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 141. (Genotype *C. thermalis* Hampson, l. c.)

255. *Chloropaschia thermalis* Hampson. Pl. III, fig. 15, ♂.

Chloropaschia thermalis HAMPSON, l. c.

Habitat: French Guiana.

Types, male and female, in Schaus Collection, U. S. N. M. Carn. Mus.: thirty-seven specimens from French Guiana (Klages coll.).

256. *Chloropaschia afflicta* Schaus. Pl. III, fig. 9, ♂.

Chloropaschia afflicta SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 235.

Habitat: Guatemala to Bolivia.

Type, male, from Guatemala, in U. S. N. M. Carn. Mus.: two from Guatemala (Schaus and Barnes coll.); forty-three from French Guiana, and fourteen from Rio Purús, Brazil (Klages coll.); two from Teffe, Brazil (Parish coll.); one from Bolivia (Steinbach coll.).

257. *Chloropaschia rufilinea* (Druce). Pl. III, fig. 10, ♂.

Macalla rufilinea DRUCE, Ann. Mag. Nat. Hist. (8) VI, 1910, p. 182.

Stericta contortilinealis DOGNIN, Ann. Soc. Ent. Belg., LII, 1908, p. 26.

Habitat: Costa Rica, Peru, Bolivia.

Type, male, in Collection Herbert Druce. Carn. Mus.: two females, from Costa Rica (Schaus coll.); one male from Bolivia (Steinbach coll.). A series in the U. S. N. M.

258. *Chloropaschia venantia* Schaus. Pl. III, fig. 19, ♂, type.

Chloropaschia venantia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 30.

Habitat: French Guiana, Brazil.

Type and four paratypes from French Guiana in the Carnegie Museum, and also two paratypes from Hyutanahan, Brazil (Klages coll.). Paratypes have been presented to the U. S. N. M.

259. *Chloropaschia zenoa* Schaus. Pl. III, fig. 11, ♂, type.

Chloropaschia zenoa SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 29.

Habitat: French Guiana.

Type, male, in the Carn. Mus. A paratype has been communicated to the U. S. N. M.

260. **Chloropaschia consimilis** (Dognin). Pl. III, fig. 17, ♂.

Epipaschia consimilis DOGNIN, Het. Nouv., 3, 1911, p. 63.

Habitat: French Guiana, Brazil.

Type, male, in Collection Dognin. Carn. Mus.: three from French Guiana, three from Rio Purús, Brazil (Klages coll.). Represented in the U. S. N. M.

261. **Chloropaschia ædesia** Schaus. Pl. III, fig. 20, ♂, *type*.

Chloropaschia ædesia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 32.

Habitat: French Guiana.

Type, male, in Carn. Mus.

262. **Chloropaschia hollandalis** Schaus. Pl. III, fig. 18, ♂, *type*.

Chloropaschia hollandalis SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 33.

Habitat: Brazil.

Type, male, in Carn. Mus. (Klages coll.).

263. **Chloropaschia mennusalis** Schaus. Pl. III, fig. 12, ♂.

Chloropaschia mennusalis SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 236.

Habitat: French Guiana, Brazil, Bolivia.

Type, male, from French Guiana (Schaus coll.) in U. S. N. M. Carn. Mus.: thirteen specimens from Hyutanahan, Brazil (Klages coll.); eleven from Bolivia (Steinbach coll.). U. S. N. M., a small series.

264. **Chloropaschia fiachnalis** Schaus. Pl. III, fig. 13, ♂, *paratype*.

Chloropaschia fiachnalis SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 32.

Habitat: French Guiana, Brazil, Bolivia.

Type, male, in U. S. N. M. from Manaos, Brazil. Four paratypes from French Guiana (Klages coll.); one paratype from Bolivia (Steinbach coll.). A small series in U. S. N. M.

265. **Chloropaschia brithvalda** Schaus. Pl. VII, fig. 9, ♂, *paratype*.

Chloropaschia brithvalda SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 236.

Habitat: Peru.

Type, male, in U. S. N. M.

NOTE. *Chloropaschia letharda* Schaus, Proc. Ent. Soc. Wash., XXIV, 1900, p. 237, has been transferred by the author to the *Phycitinæ*.

266. **Chloropaschia epipodia** Schaus. Pl. III, fig. 16, ♂, *type*.

Chloropaschia epipodia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 30.

Habitat: French Guiana, Brazil.

Type, male, and one paratype from French Guiana, and one paratype from Hyutanahan, Brazil, in the Carn. Mus. A paratype has been communicated to the U. S. N. M.

267. **Chloropaschia aniana** Schaus. Pl. III, fig. 14, ♂, *type*.

Chloropaschia aniana SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 31.

Habitat: French Guiana, Brazil.

Type, male, from French Guiana, and male paratype from Hyutanahan, Brazil, in the Carn. Mus.; a paratype from French Guiana presented to the U. S. N. M.

268. **Chloropaschia canities** Schaus. Pl. VII, fig. 4, ♂, *type*.

Chloropaschia canities SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 666.

Habitat: Costa Rica.

Type, male, in Schaus Collection, U. S. N. M.

269. **Chloropaschia rufibasis** (Druce). Pl. VII, fig. 3, ♂.

Macalla rufibasis DRUCE, Ann. Mag. Nat. Hist. (8) VI, 1910, p. 183.

Macalla claphealis SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 667.

Habitat: Peru, Costa Rica.

Type of *M. rufibasis* Druce, from Peru, in Collection Herbert Druce; type of *M. claphealis* Schaus, in Schaus Collection, U. S. N. M. ("It is possible that *Pococera brunnapex* Kaye is a synonym of this species." William Schaus).

270. **Chloropaschia cristalis** (Felder and Rogenhofer).

Deuterollyta cristalis FELDER and ROGENHOFER, Novara Reise, 1874, pl. CXXXVI, fig. 17.

Habitat: Brazil.

Type, male, in Felder Collection in the Zoölogical Museum at Tring, England.

Genus **RÆSELIODES** Warren.

Ræseliodes WARREN, Ann. Mag. Nat. Hist. (6) VII, 1891, p. 435. (Genotype *R. ochreosticta* Warren, *l. c.*)

271. *Ræseliodes ochreosticta* Warren.

Ræseliodes chreosticta WARREN, Ann. Mag. Nat. Hist. (6) VII, 1891, p. 435.

Habitat: Eastern Brazil.

Type, male, from Rio de Janeiro.

272. *Ræseliodes dissimilis* Warren.

Ræseliodes dissimilis WARREN, *ibidem*.

Habitat: Eastern Brazil.

Type, male, from Rio Janeiro.

Genus *STERICTA* Lederer.

Stericta LEDERER, Wien. Ent. Monatschr., VII, 1863, p. 340.—HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 470.* (Genotype *Glossina divitalis* Guenée, Spec. Génér., VIII, Delt. et Pyral., I, 1851, p. 124. *Hab.*: Central India.)

273. *Stericta albifasciata* (Druce). Pl. III, fig. 23, ♂.

Cecidiptera albifasciata DRUCE, Ann. Mag. Nat. Hist. (7) IX, 1902, p. 325.

Habitat: Guatemala, Costa Rica, Ecuador, Peru, French Guiana, Brazil, Bolivia.

Types, males, in Collection Herbert Druce. Carn. Mus.: Guatemala, two, Costa Rica, two (Schaus and Barnes *coll.*); French Guiana, seven, Hyutanahan, Brazil, two (Klages *coll.*); Bolivia, sixteen (Steinbach *coll.*). U. S. N. M.: a series.

274. *Stericta obliqualis* Hampson. Pl. IV, fig. 3, ♂, near type; fig. 4, ♂, var. *griseobasis*, Holl. & Schaus; fig. 7, ♂, var. *menoralis* Schaus.

Stericta obliqualis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 145.

Habitat: Bolivia, Brazil, French Guiana.

Type, male, in British Museum, from the Andean foot-hills, not far from La Paz. A typical specimen, which has been compared with the type, is in the U. S. N. M. Carn. Mus.: two from French Guiana, two from Hyutanahan, Brazil, nearly agree with the type, though somewhat darker.

* The generic synonymy given by Hampson has not been followed by us in several particulars. We recognize *Cacozelia* Grote and *Ræseliodes* Warren as valid genera, although Hampson sinks them as synonyms of *Stericta* together with many other genera of other authors.

This seems to be a very variable species. The Carnegie Museum, as well as the United States National Museum, possesses a long series of specimens, which reveal considerable differences in the intensity of the coloration and the distribution of the shades on the fore-wings, although all are alike in the form and disposition of the transverse lines and spots. Some of these forms might be worthy of varietal names. We show three of them. The one given on Pl. IV, fig. 3, most nearly resembles typical *S. obliquialis* Hampson, but is a trifle darker on the fore-wings and the thorax, thus throwing the pale collar into relief; another form, Pl. IV, fig. 7, is prevalently paler, with the middle area of the fore wing clouded with dark; the third form, Pl. IV, fig. 4, has the basal area of the fore wing quite pale gray, contrasting with the darker color of the middle third of the fore-wing. To the form shown on Pl. IV, fig. 7, Dr. Schaus has applied the name *S. menoralis*; the form shown on the same plate, fig. 4, may be called *var. griseobasis* Holland and Schaus.

275. *Stericta chionopheralis* Hampson. Pl. III, fig. 24, ♂.

Stericta chionopheralis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 143.

Habitat: Guatemala, Guiana, Brazil, Bolivia, Paraguay.

Types, male and female, from near Rio de Janeiro and from Paraguay, in Brit. Mus. Carn. Mus.: three from Guatemala (Schaus and Barnes *coll.*); from French Guiana, sixteen; from Rio Purús, Brazil, seven (Klages *coll.*); from Bolivia, nine (Steinbach *coll.*). A series in the U. S. N. M.

276. *Stericta hemileuca* Dognin.

Stericta hemileuca DOGNIN, Ann. Soc. Ent. Belg., LIV, 1910, p. 117.

Habitat: French Guiana.

Types, male and female, in Collection Dognin. We have thus far failed to recognize this species in any of the material we have examined in North American collections.

277. *Stericta leucoplagialis* Hampson.

Pl. III, fig. 25, typical ♂; fig. 27, var. *purusalis*, ♂, Holl. & Schaus.

Stericta leucoplagialis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 143.

Habitat: Guiana, Brazil, Bolivia.

Types, male and female, in Brit. Mus., from British Guiana and

Bolivia. A specimen from Chapada, Brazil, in the Holland Collection is in the Carnegie Museum and agrees with the type, with which it has been compared. The species is further represented in the Carnegie Museum by one specimen from French Guiana, and fifteen from Bolivia (Steinbach *coll.*).

The species is also represented in the Carnegie Museum by a varietal form (Pl. III, fig. 27) in which the white on the fore-wing is greatly reduced in extent. Of this form there are in the Holland Collection ten specimens collected at Chapada, Brazil, by H. H. Smith; and in the general collection of the Carnegie Museum one from Bolivia (Steinbach *coll.*) and seven from Hyutanahan, Brazil, on the Rio Purús (Klages *coll.*). This dark form is well worthy of a varietal name and the senior author proposes for it the name *purusalis*, in allusion to the Rio Purús.

278. ***Stericta cecidiptoides*** Schaus. Pl. III, fig. 6, ♀, *type*.

Stericta cecidiptoides SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 40.

Habitat: Bolivia.

The type, a unique female, in Carn. Mus., Puerto Suarez, Bolivia (Steinbach *coll.*).

279. ***Stericta olivenca*** Schaus. Pl. III, fig. 7, ♀, *allotype*.

Stericta olivenca SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 41.

Habitat: Brazil.

Type, male, in U. S. N. M. from São Paulo de Olivença, Brazil; allotype, female, from Hyutanahan, Brazil (Klages *coll.*). We figure the allotype.

280. ***Stericta apicalis*** (Schaus). Pl. III, fig. 26, ♂.

Jocara apicalis SCHAUS, Proc. U. S. N. M., XXX, 1906, p. 141.

Stericta apicalis SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 669.

Habitat: Mexico, Costa Rica.

The type of *Jocara apicalis* Schaus from Orizaba, Mexico, is in the U. S. N. M.; of *Stericta apicalis* Schaus (redescribed) in the Schaus Collection, U. S. N. M. The Carnegie Museum possesses two examples from Costa Rica (Schaus *coll.*) one of which is figured on the plate above cited.

281. **Stericta paschasia** Schaus. Pl. IV, fig. 22, ♂, *type*.

Stericta paschasia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 37.

Habitat: Brazil.

Type, male, and allotype, female, and one paratype, all from the Rio Purús, Brazil, in the Carnegie Museum. A paratype has been presented to the U. S. N. M.

282. **Stericta pontealis** Schaus. Pl. IV, fig. 37, ♂, *type*.

Stericta pontealis SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 39.

Habitat: French Guiana.

Type, male, and three paratypes in the Carnegie Museum. A paratype has been presented to the U. S. N. M.

283. **Stericta hermengilda** Schaus. Pl. IV, fig. 42, ♂, *type*.

Stericta hermengilda SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 37.

Habitat: Brazil.

Type, male, in the Carnegie Museum, from Nova Olinda, Rio Purús, Brazil.

284. **Stericta comgalla** Schaus. Pl. IV, fig. 33, ♂, *type*.

Stericta comgalla SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 35.

Habitat: French Guiana.

Type, male, in Carnegie Museum (Klages *coll.*).

286. **Stericta eadberti** Schaus. Pl. IV, fig. 41, ♂, *type*.

Stericta eadberti SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 36.

Habitat: French Guiana.

Type, male, and two paratypes in Carnegie Museum (Klages *coll.*).

286. **Stericta glaucinalis** Hampson. Pl. IV, fig. 40, ♂.

Stericta glaucinalis HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 142.

Habitat: French Guiana.

One example in Carn. Mus. Represented in U. S. N. M. We figure the specimen in the Carnegie Museum.

287. **Stericta possidia** Schaus. Pl. IV, fig. 34, ♂, *type*.

Stericta possidia SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 40.

Habitat: French Guiana.

Type, male, and one paratype in Carn. Mus. A paratype, male, presented to the U. S. N. M.

288. **Stericta umbrosalis** Schaus. Pl. VII, fig. 33, ♀, *allotype*.

Stericta umbrosalis SCHAUS, Ann. Mag. Nat. Hist. (8) IX, 1912, p. 669.

Habitat: Costa Rica.

Type, male, and allotype in Schaus Collection, U. S. N. M.

289. **Stericta maidoa** Schaus. Pl. VII, fig. 5, ♀, *paratype*.

Stericta maidoa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 238.

Habitat: French Guiana.

Type, female, in U. S. N. M.

290. **Stericta nolasca** Schaus. Pl. VII, fig. 25, ♂, *type*.

Stericta nolasca SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 237.

Habitat: Mexico.

Type, male, in U. S. N. M.

291. **Stericta canutusa** Schaus. Pl. VII, fig. 28, ♂, *type*.

Stericta canutusa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 238.

Habitat: French Guiana.

Type, male, in U. S. N. M.

292. **Stericta bevnoa** Schaus. Pl. III, fig. 29, ♂, *type*.

Stericta bevnoa SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 35.

Habitat: French Guiana.

Type, male, and two paratypes in Carnegie Museum. A paratype presented to the U. S. N. M.

293. **Stericta anthimusalis** Schaus. Pl. IV, fig. 45, ♂, *type*.

Stericta anthimusalis SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 34.

Habitat: Brazil.

Type, male, in Carn. Mus., from Hyutanahan, Brazil (Klages coll.).

294. **Stericta mianalis** (Felder and Rogenhofer).

Homura mianalis FELDER and ROGENHOFER, Novara Reise, 1874, pl. CXXXVI, fig. 18.

Type, male, in Felder Collection now in the Rothschild Collection, Tring, England.

295. **Stericta alnotha** Schaus. Pl. VII, fig. 11, ♂, *type*.

Stericta alnotha SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 239.

Habitat: Porto Rico.

Type, male, in U. S. N. M.

296. **Stericta petamona** Schaus. Pl. IV, fig. 38, ♂, *paratype*.

Stericta petamona SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 38.

Habitat: Brazil.

Type, male, in U. S. N. M., paratypes in the Carnegie Museum.

297. **Stericta maroniensis** Hampson.

Stericta maroniensis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 149.

Habitat: French Guiana.

Type, male, in Brit. Mus. So far not recognized in any of the material before us.

298. **Stericta basalis** Jones.

Stericta basalis JONES, Trans. Ent. Soc. Lond., 1912, p. 441.

Habitat: Brazil.

Type, female, in Brit. Mus.(?) Not in the U. S. N. M., nor the Carn. Mus.

299. **Stericta francesca** Jones.

Stericta francesca JONES, Trans. Ent. Soc. Lond., 1912, p. 442.

Habitat: Brazil.

Type, male, in Brit. Mus.(?)

300. **Stericta ildefonsa** Schaus. Pl. III, fig. 28, ♂.

Stericta ildefonsa SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 240.

Habitat: French Guiana, Brazil.

Type, female, in U. S. N. M. The Carn. Mus. has two specimens from Hyutanahan and one from Pará, Brazil.

301. *Stericta emerantia* Schaus. Pl. VII, fig. 32, ♀, *type*.*Stericta emerantia* SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 240.*Habitat*: Peru.

Type, female, in U. S. N. M.

302. *Stericta teffealis* Schaus. Pl. IV, fig. 36, ♂.*Stericta teffealis* SCHAUS, Proc. Ent. Soc. Wash., XXIV, 1922, p. 237.*Habitat*: Brazil, Bolivia.Type, male, in U. S. N. M., from the mouth of the Rio Teffe. Carn. Mus.: one from Hyutanahan, Brazil (Klages *coll.*); and three from Bolivia (Steinbach *coll.*).303. *Stericta phæbadia* Schaus. Pl. IV, fig. 19, ♂, *type*.*Stericta phæbadia* SCHAUS, Ann. Carn. Mus., XVI, 1925, p. 39.*Habitat*: Brazil.

Type, male, in Carn. Mus. from Nova Olinda, Rio Purús, Brazil.

304. *Stericta scopipes* (Felder and Rogenhofer). Pl. III, fig. 21, ♂.*Idia* (?) *scopipes* FELDER and ROGENHOFER, Novara Reise, 1874, pl. XXXVI, fig. 39.*Leptosphetta rabdina* BUTLER, Trans. Ent. Soc. Lond., 1878, p. 67.*Pycnulia ministra* ZELLER, Horæ Soc. Ent. Ross., XVI, 1881, p. 187, pl. XI, figs. 14a-b.*Stericta scopipes* HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 474.*Habitat*: Central America to Bolivia.Type, male, from Bogotá, in Felder Collection, Rothschild Collection, Tring. The types of *L. rabdina* Butler and *P. ministra* Zeller are in the Brit. Mus. Carn. Mus.: Costa Rica, three, Guatemala, one (Schaus and Barnes *coll.*); Bolivia, eleven (Steinbach *coll.*); French Guiana, fifteen, Rio Purús, Brazil, five (Klages *coll.*); Chapada, Brazil, two (H. H. Smith *coll.*), the last in the Holland Collection. The U. S. N. M. has a good series.305. *Stericta abrupta* (Zeller). Pl. III, fig. 22, ♂.*Pycnulia abrupta* ZELLER, Horæ Soc. Ent. Ross., XVI, 1881, p. 189, pl. XI, fig. 16.*Stericta abrupta* HAMPSON, Trans. Ent. Soc. Lond., 1896, p. 474.*Habitat*: Central America to Bolivia.

The types, males, in the Brit. Mus. Carn. Mus.: Guatemala, one

(Schaus and Barnes *coll.*); Venezuela, one (Klages *coll.*); French Guiana, sixteen, Hyutanahan, Brazil, four (Klages *coll.*); Bolivia, thirty (Steinbach *coll.*); Chapada, Brazil, one (H. H. Smith *coll.*) (in Holland Collection). A good series is in the U. S. N. M.

Genus TAPINOLOPHA Dyar.

Tapinolopha DYAR, Proc. U. S. N. M., LIV, 1919, p. 371. (Genotype *T. variegata* Dyar, *l. c.*)

306. *Tapinolopha variegata* Dyar. Pl. VII, fig. 24, ♂, *type*.

Tapinolopha variegata DYAR, *l. c.*, p. 372.

Habitat: Mexico.

Type, male, in U. S. N. M. (Müller *coll.*).

Genus STENOPASCHIA Hampson.

Stenopaschia HAMPSON, Ann. Mag. Nat. Hist. (7) XVII, 1906, p. 189.

Stenopaschia DYAR, Proc. U. S. N. M., XLVII, 1915, p. 325 (describes as *gen. nov.*) (Genotype *S. erythralis* Hampson, *l. c.*, p. 190.)

307. *Stenopaschia erythralis* Hampson. Pl. VII, fig. 19, ♀, *allotype*.

Stenopaschia erythralis HAMPSON, *l. c.*

Habitat: Brazil.

Type, male, in Brit. Mus.; allotype, female, in Schaus Collection, U. S. N. M.

308. *Stenopaschia gallerialis* Hampson.

Stenopaschia gallerialis HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 153.

Habitat: Colombia.

Type, male, in British Museum.

309. *Stenopaschia trichopteris* Dyar. Pl. VII, fig. 29, ♂, *type*.

Stenopaschia trichopteris DYAR, Proc. U. S. N. M., XLVII, 1915, p. 325.

Habitat: Panama.

Types, a male and two females, in U. S. N. M.

Genus GENOPASCHIA Dyar.

Genopaschia DYAR, Proc. U. S. N. M., XLVII, 1915, p. 324. (Genotype *G. protomis* Dyar, l. c.)

310. *Genopaschia protomis* Dyar. Pl. VII, fig. 14, ♂, type.

Genopaschia protomis DYAR, l. c.

Habitat: Panama.

Types, male and female, in U. S. N. M.

Genus GLOSSOPASCHIA Dyar.

Glossopaschia DYAR, Proc. U. S. N. M., XLVII, 1915, p. 326. (Genotype *G. cænoses* Dyar, l. c.)

311. *Glossopaschia cænoses* Dyar. Pl. VII, fig. 30, ♀, type.

Glossopaschia cænoses DYAR, l. c.

Habitat: Panama.

Types, females, in U. S. N. M.

Genus ISOLOPHA Hampson.

Isolopha HAMPSON, Ann. Mag. Nat. Hist. (6) XVI, 1895, p. 347. (Genotype *I. lactealis* Hampson, l. c.)

312. *Isolopha lactealis* Hampson.

Isolopha lactealis HAMPSON, l. c.; Trans. Ent. Soc. Lond., 1896, p. 479, figure.

Habitat: West Indies.

Type, female, in British Museum.

Genus TINEOPASCHIA Hampson.

Tineopaschia HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 153. (Genotype *T. minuta* Hampson, l. c.)

313. *Tineopaschia minuta* Hampson.

Tineopaschia minuta HAMPSON, l. c.

Habitat: Jamaica.

Type, male, in British Museum (Walsingham coll.).

Genus XENOPHASMA Dognin.

Xenophasma DOGNIN, Ann. Soc. Ent. Belg., XLIX, 1905, p. 62. (Genotype *X. notodontoides* Dognin, *l. c.*)

Dognin referred his genus *Xenophasma* to the subfamily *Schænobiinæ*, but Sir George Hampson has transferred it to the *Epipaschiinæ*, and we follow him.

314. *Xenophasma notodontoides* Dognin.

Xenophasma notodontoides DOGNIN, *l. c.*

Habitat: Brazil.

Type, male, in Collection Dognin. The species has not been recognized by us in any of the material we have examined.

315. *Xenophasma chalcoclora* Hampson.

Xenophasma chalcoclora HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 152.

Habitat: Colombia.

Type, male, in British Museum. Not in the U. S. N. M., nor the Carn. Mus.

Genus PROROPOCA Hampson.

Proropoca HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 154. (Genotype *P. rubrescens* Hampson, *l. c.*)

316. *Proropoca rubrescens* Hampson.

Proropoca rubrescens HAMPSON, Ann. Mag. Nat. Hist. (8) XVIII, 1916, p. 154.

Habitat: Colombia.

Type, male, in British Museum. Not in U. S. N. M., nor the Carnegie Museum.

SUPPLEMENTARY.

Since the foregoing list was prepared, Mr. W. J. Kaye has published two species, which he refers to the *Epipaschiinæ* (*Pococerinæ*). They are the following:

317. *Jocara* (*lichfoldi*)* *lickfoldi* Kaye.

Jocara lichfoldi KAYE, Trans. Ent. Soc. Lond., 1924, (Feb. 1925), p. 425, Pl. XLV, fig. 5.

Habitat: Trinidad.

Type, male, in Oxford Museum.

From the figure it appears that the wings somewhat resemble in form those of certain species of *Nouanda*, e. g. *N. nocturna* Schaus, but the description of the oral parts does not agree with what we know of this genus. The reference to *Jocara* by Kaye is evidently made with doubt, as he speaks of the insect as being "anomalous."

318. *Stericta palmistalis* Kaye.

Stericta palmistalis KAYE, Trans. Ent. Soc. Lond., 1924, (Feb. 1925), p. 424, Pl. XLV, Fig. 19.

Habitat: Trinidad.

Type, (sex not given) in the Collection of Sir Norman Lamont.

* I have received a letter from Mr. W. J. Kaye in which he says "*Jocara lichfoldi* certainly should have been *lickfoldi* and is an oversight."

EXPLANATION OF PLATE V.

- FIG. 1. *Epipaschia superatalis* Clemens, ♂, Chappaqua, N. Y. (A. M. N. M.)
 FIG. 2. *Epipaschia superatalis* Clemens, ♀, Chappaqua, N. Y. (A. M. N. H.)
 FIG. 3. *Epipaschia zelleri* Grote, ♀, Pittsburgh, Pa. (C. M.)
 FIG. 4. *Tetralopha militella* Zeller, ♂, Pittsburgh, Pa. (C. M.)
 FIG. 5. *Tetralopha militella* Zeller, ♀, form *platanella* (Clemens), Pa. (C. M.)
 FIG. 6. *Tetralopha querciella* Barnes & McDunnough, ♂, Texas (Holland Coll'n.)
 FIG. 7. *Tetralopha asperatella* (Clemens), ♂, Pittsburgh, Pa. (C. M.)
 FIG. 8. *Tetralopha asperatella* (Clemens), ♀, Pittsburgh, Pa. (C. M.)
 FIG. 9. *Tetralopha humerella* Ragonot, = *formosella* Hulst, ♀, Pitts., Pa. (C. M.)
 FIG. 10. *Tetralopha euphcmella* (Hulst), ♂, Texas (Holland Collection.)
 FIG. 11. *Tetralopha euphemella* (Hulst), ♀, Texas (Holland Collection.)
 FIG. 12. *Tetralopha robustella* Zeller, form *diluculella* Grote, ♀ (U. S. N. M.)
 FIG. 13. *Oneida lunulalis* (Hulst), ♀, Allegheny County, Pa. (C. M.)
 FIG. 14. *Jocara trabalis* (Grote), ♂, Redington, Arizona (Holland Collection.)
 FIG. 15. *Jocara incrustalis* Hulst, ♀, Stemper, Florida (C. M.)
 FIG. 16. *Tetralopha baptisiella* Fernald, ♂, Illinois (C. M.)
 FIG. 17. *Cacozelia basiochrealis* Grote, ♀, Arizona (C. M.)
 FIG. 18. *Tioga atrifascialis* (Hulst), ♂, Kerrville, Texas (U. S. N. M.)
 FIG. 19. *Jocara breviornatalis* (Grote), ♀, Texas (U. S. N. M.)
 FIG. 20. *Tetralopha callipeplella* Hulst, ♀, Kerrville, Texas (U. S. N. M.)
 FIG. 21. *Tetralopha texanella* (Ragonot), ♂, Sabinal, Texas (U. S. N. M.)
 FIG. 22. *Tioga aplastella* Hulst, ♂, Aweme, Manitoba (U. S. N. M.)
 FIG. 23. *Tetralopha callipeplella* (Hulst), ♀, Sabinal, Texas (U. S. N. M.)
 FIG. 24. *Jocara interruptella* Ragonot, ♂, Baboquivaria Mts., Ariz. (U. S. N. M.)
 FIG. 25. *Tetralopha floridella* (Hulst), ♀, Palm Beach, Florida (U. S. N. M.)
 FIG. 26. *Oneida luniferella* Hulst, ♀, Glenwood, Colorado (U. S. N. M.)
 FIG. 27. *Cacozelia alboplagialis* Dyar, ♂, *paratype*, Arizona (U. S. N. M.)
 FIG. 28. *Tetralopha provoella* Barnes and Benjamin, ♂, *paratype*, Provo Canyon, Utah (Barnes Collection.)
 FIG. 29. *Oneida luniferella pallidalis* Barnes & Benjamin, ♂, *paratype*, Stockton, Utah (Barnes Collection.)

EXPLANATION OF PLATE V.—*Continued.*

- FIG. 30. *Tetralopha spaldingella* Barnes & Benjamin, ♂, *paratype*, Stockton, Utah (Barnes Collection.)
- FIG. 31. *Tetralopha fuscolotella* Ragonot, ♂, Babaquivera Mts., Arizona (Barnes Collection.)
- FIG. 32. *Tetralopha fuscolotella* Ragonot, ♀, Babaquivera Mts., Arizona (Barnes Collection.)
- FIG. 33. *Tioga watsoni* (Barnes & McDunnough), ♂, *paratype*, Fla. (Barnes Coll'n.)
- FIG. 34. *Tetralopha scortealis* (Lederer), ♂, No. Carolina (Barnes Collection.)
- FIG. 35. *Tetralopha scortealis* (Lederer), ♀, No. Carolina (Barnes Collection.)
- FIG. 36. *Tetralopha thoracicella* Barnes & Benjamin, ♂, *paratype*, Babaquivera Mts., Arizona (Barnes Collection.)
- FIG. 37. *Tetralopha querciella* Barnes & McDunnough, ♀, *paratype*, Marco, Florida (Barnes Collection.)
- FIG. 38. *Epipaschia albomedialis* Barnes & Benjamin, ♂, *paratype*, San Benito, Texas (Barnes Collection.)
- FIG. 39. *Epipaschia albomedialis* Barnes & Benjamin, ♀, *paratype*, San Benito, Texas (Barnes Collection.)
- FIG. 40. *Tetralopha arizonella* Barnes & Benjamin, ♂, *paratype*, White Mts., Arizona (Barnes Collection.)
- FIG. 41. *Tetralopha arizonella* Barnes & Benjamin, ♀, *paratype*, White Mts., Arizona (Barnes Collection.)
- FIG. 42. *Tetralopha griseella* Barnes & Benjamin, ♂, *paratype*, Cochise County, Arizona (Barnes Collection.)
- FIG. 43. *Tetralopha griseella* Barnes & Benjamin, ♀, *paratype*, Cochise County, Arizona (Barnes Collection.)
- FIG. 44. *Tetralopha tiltella* Hulst, ♂, Brownsville, Texas (Barnes Collection.)
- FIG. 45. *Tetralopha tiltella* Hulst, ♀, Brownsville, Texas (Barnes Collection.)
- FIG. 46. *Tetralopha slossoni* (Hulst), ♀, Lakeland, Florida (Barnes Collection.)
(Compared and agreeing with Hulst's type.)

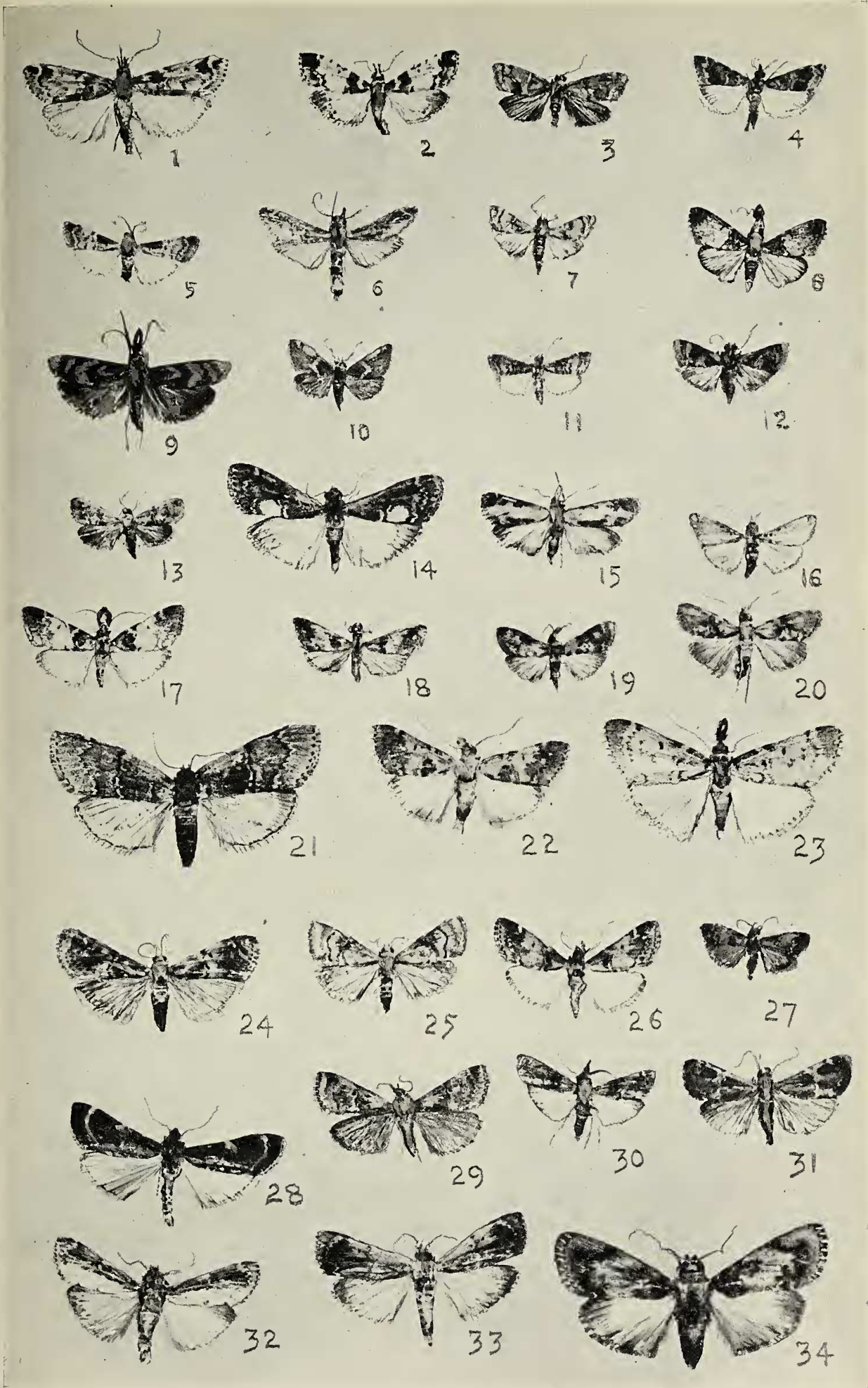


Epipaschiinae.

(All figures about natural size.)

EXPLANATION OF PLATE VI.

- FIG. 1. *Auradisa marmorata* Schaus, ♂, *type*, Mt. Poas, Costa Rica (U. S. N. M.)
 FIG. 2. *Auradisa albimedium* Schaus, ♀, *type*, Juan Vinas, Costa Rica (U. S. N. M.)
 FIG. 3. *Pococera narthusa* Schaus, ♀, *type*, Tuis, Costa Rica (U. S. N. M.)
 FIG. 4. *Pococera limalis* Schaus, ♀, *paratype*, Lima, Peru (U. S. N. M.)
 FIG. 5. *Pococera insularella* (Ragonot), ♀, Santiago de Cuba (U. S. N. M.)
 FIG. 6. *Tancoa quiriguana* Schaus, ♂, *paratype*, Guatemala (U. S. N. M.)
 FIG. 7. *Nouanda sadotha* Schaus, ♂, *type*, French Guiana (U. S. N. M.)
 FIG. 8. *Nouanda agatha* Schaus, ♂, *type*, Cayuga, Guatemala (U. S. N. M.)
 FIG. 9. *Nouanda nocturna* Schaus, ♂, *type*, French Guiana (U. S. N. M.)
 FIG. 10. *Pocopaschia bellangula* Dyar, ♂, *paratype*, Cayuga, Guatemala (U. S. N. M.)
 FIG. 11. *Pococera vedastella* Schaus, ♂, *paratype*, Santiago de Cuba (U. S. N. M.)
 FIG. 12. *Pococera baradata* Schaus, ♂, *type*, Port of Spain, Trinidad (U. S. N. M.)
 FIG. 13. *Lepidogma modana* Schaus, ♀, *type*, Chejel, Guatemala (U. S. N. M.)
 FIG. 14. *Jocara suiferens* Dyar, ♂, *type*, Pampaconas River (U. S. N. M.)
 FIG. 15. *Jocara thilloa* Schaus, ♂, *type*, French Guiana (U. S. N. M.)
 FIG. 16. *Jocara ansberti* Schaus, ♂, *type*, French Guiana (U. S. N. M.)
 FIG. 17. *Jocara medusa* (Druce), ♂, Santo Domingo, S. E. Peru (U. S. N. M.)
 FIG. 18. *Jocara albimedialis* Hampson, ♂, Eastern Peru (Ockendon *coll.*) (U. S. N. M.)
 FIG. 19. *Jocara theliana* Schaus, ♂, *type*, Quirigua, Guatemala (U. S. N. M.)
 FIG. 20. *Jocara zetila* (Druce), ♂, Sixola River, Costa Rica (U. S. N. M.)
 FIG. 21. *Jocara anastasia* Schaus, ♀, *paratype*, Volcan Ste Maria, Guatemala (U. S. N. M.)
 FIG. 22. *Jocara abachuma* Schaus, ♂, *type*, Castro, Paraná, Brazil (U. S. N. M.)
 FIG. 23. *Jocara conrana* Schaus, ♂, *type*, Tinguri, Carabaya, Peru (U. S. N. M.)
 FIG. 24. *Jocara luciana* Schaus, ♀, *type*, Quirigua, Guatemala (U. S. N. M.)
 FIG. 25. *Jocara aidana* Schaus, ♀, *type*, Castro, Paraná, Brazil (U. S. N. M.)
 FIG. 26. *Jocara multicolor* Dognin, ♂, comp. with type, Santo Domingo, Carabaya, S. E. Peru (U. S. N. M.)
 FIG. 27. *Jocara nana* Schaus, ♂, *type*, Juan Vinas, Costa Rica (U. S. N. M.)
 FIG. 28. *Jocara rubralis* Hampson, ♀, Colombia (U. S. N. M.)
 FIG. 29. *Jocara subfusca* Schaus, ♂, *paratype*, Cayuga, Guatemala (U. S. N. M.)
 FIG. 30. *Jocara maroa* Schaus, ♂, *type*, Baracoa, Cuba (U. S. N. M.)
 FIG. 31. *Jocara raymonda*, ♀, *type*, French Guiana (U. S. N. M.)
 FIG. 32. *Jocara pagiroa* (Schaus), ♂, *type*, Panama (U. S. N. M.)
 FIG. 33. *Jocara terrenalis* Schaus, ♀, *type*, Sixola River, Costa Rica (U. S. N. M.)
 FIG. 34. *Macalla vulstana* Schaus, ♀, *type*, Yahuarmayo, Peru (U. S. N. M.)

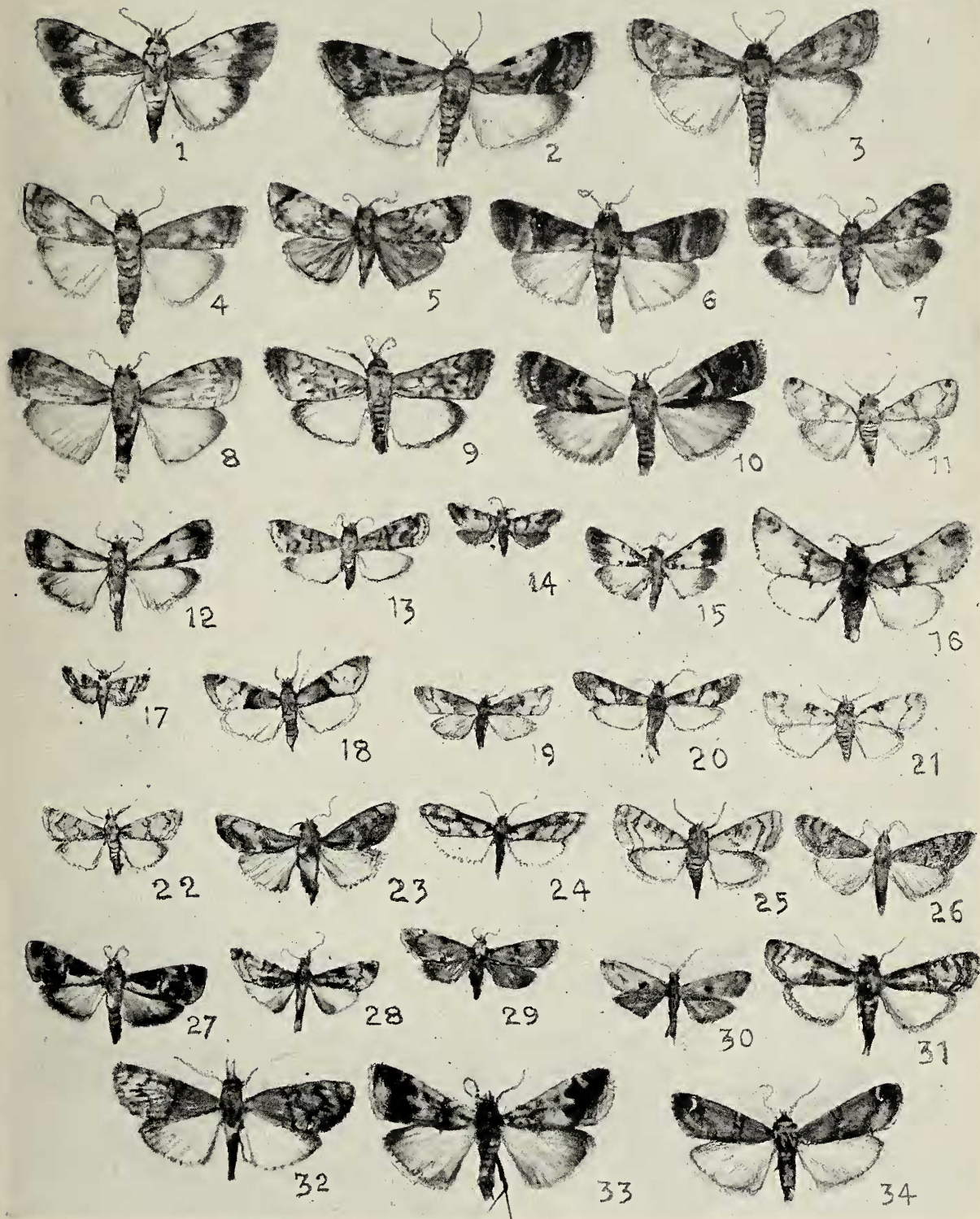


Epipaschiinae.

(All figures about natural size.)

EXPLANATION OF PLATE VII.

- FIG. 1. *Macalla finstanalis* Schaus, ♂, *type*, Castro, Paraná, Brazil (U. S. N. M.)
 FIG. 2. *Locastra erythea* (Druce), ♀, Castro, Paraná, Brazil (U. S. N. M.)
 FIG. 3. *Chloropaschia rufibasis* (Druce), ♂, Quirigua, Guatemala (U. S. N. M.)
 FIG. 4. *Chloropaschia canities* Schaus, ♂, *type*, Sixola River, Costa Rica (U.S.N.M.)
 FIG. 5. *Stericta maidoa* Schaus, ♀, *paratype*, French Guiana (U. S. N. M.)
 FIG. 6. *Macalla selecta* Schaus, ♀, *paratype*, Quirigua, Guatemala (U. S. N. M.)
 FIG. 7. *Macalla nebulosa* Schaus, ♀, *type*, Avangerez, Costa Rica (U. S. N. M.)
 FIG. 8. *Macalla pegalis* Schaus, ♀, *paratype*, Quirigua, Guatemala (U. S. N. M.)
 FIG. 9. *Chloropaschia brithvalda* Schaus, ♂, *paratype*, Carabaya, Peru (U.S.N.M.)
 FIG. 10. *Jocara basilata* (Schaus), ♀, *type*, Juan Vinas, Costa Rica (U. S. N. M.)
 FIG. 11. *Stericta alnotha* Schaus, ♂, *type*, Porto Rico (U. S. N. M.)
 FIG. 12. *Macalla marginata* Schaus, ♀, *type*, Sixola River, Costa Rica (U. S. N. M.)
 FIG. 13. *Jocara crinitalis* Schaus, ♀, *type*, Cayuga, Guatemala (U. S. N. M.)
 FIG. 14. *Genopaschia protomis* Dyar, ♂, *type*, Rio Trinidad, Panama (U. S. N. M.)
 FIG. 15. *Macalla furseyalis* Schaus, ♂, *paratype*, Quirigua, Guatemala (U. S. N. M.)
 FIG. 16. *Pocopaschia noctuina* Schaus, ♀, *paratype*, Cabima, Panama (U. S. N. M.)
 FIG. 17. *Tioga tersilla* Dyar, ♂, *type*, La Chorrera, Panama (U. S. N. M.)
 FIG. 18. *Macalla glastianalis* Schaus, ♂, *type*, Oaxaca, Mexico (U. S. N. M.)
 FIG. 19. *Stenopaschia erythralis* Hampson, ♀, *allotype*, Sao Paulo, Brazil (U.S.N.M.)
 FIG. 20. *Jocara mira* (Druce), ♂, Loja, Ecuador (U. S. N. M.)
 FIG. 21. *Tetralopha tertiella* Dyar, ♂, *paratype*, Brownsville, Texas. (U. S. N.M.)
 FIG. 22. *Apocera colorata* Dyar, ♀, *type*, Rio Trinidad, Panama (U. S. N. M.)
 FIG. 23. *Jocara vimina* Schaus, ♂, *type*, Cayuga, Guatemala (U. S. N. M.)
 FIG. 24. *Tapinolopha variegata* Dyar, ♂, *type*, Zacualpan, Mexico (U. S. N. M.)
 FIG. 25. *Stericta nolasca* Schaus, ♂, *type*, Orizaba, Mexico (U. S. N. M.)
 FIG. 26. *Auradisa remberta* Schaus, ♂, *type*, French Guiana (U. S. N. M.)
 FIG. 27. *Auradisa chrysoderas* Dyar, ♀, *type*, British Guiana (U. S. N. M.)
 FIG. 28. *Stericta canutusa* Schaus, ♂, *type*, French Guiana (U. S. N. M.)
 FIG. 29. *Stenopaschia trichopteris* Dyar, ♂, *type*, Rio Trinidad, Panama (U.S.N.M.)
 FIG. 30. *Glossopaschia cænoses* Dyar, ♀, *type*, La Chorrera, Panama (U. S. N. M.)
 FIG. 31. *Auradisa fechina* Schaus, ♀, *type*, French Guiana (U. S. N. M.)
 FIG. 32. *Stericta emerantia* Schaus, ♀, *type*, Carabaya, Peru (U. S. N. M.)
 FIG. 33. *Stericta umbrosalis* Schaus, ♀, *allotype*, Juan Vinas, Costa Rica (U.S.N.M.)
 FIG. 34. *Oneida diploa* Dyar, ♂, *type*, Zacualpan, Mexico (U. S. N. M.)



Epipaschiinae.

(All figures about one-tenth less than natural size.)